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To the Lieutenant Governor in Council

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to transmit through the Minister of Education the Report of the University of Alberta, setting forth the revenues and expenditures for the year ending March 31st, 1951, and the investments as they stood at the end of the fiscal year.

Appended to this report is the Report of the President of the University, in which the academic work of the University for the year, July 1st, 1950 to June 30th, 1951, is dealt with in detail.

C. M. MACLEOD, *Chairman*

A. STEWART, *President*

November 30th, 1951

829220

Financial Statements

UNIVERSITY OF ALBERTA BALANCE SHEET AS AT MARCH 31, 1951

STATEMENT A

ASSETS

FIXED:

Buildings and equipment in service:		
Land, buildings and plant, Schedule No. 1	\$9,657,386.51	
Furnishings and equipment, Schedule No. 2.....	2,002,242.59	
		\$11,659,629.10

LOAN RECEIVABLE:

Students' Union re Students' Union building, see contra		379,355.18
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CURRENT:

Cash on hand	\$	6,003.18	
Accounts receivable:			
Sundry debtors	\$119,704.41		
Less: Reserve for doubtful accounts	2,500.00		
	\$117,204.41		
Government of the Province of Alberta re construction of buildings	559,911.57		
Due from trust account	15,376.08		
		692,492.06	
Accrued interest		908.33	
Merchandise held for resale, Schedule No. 4		91,421.63	
Government of Canada bonds, par value		10,000.00	
			800,825.20

PREPAID EXPENSES:

Supplies on hand, Schedule No. 4	\$	69,994.72	
Unexpired insurance		15,906.61	
Legal retainer fee		375.00	
			86,276.33

OTHER ASSETS:

Livestock inventory	\$	25,969.00	
Deposit, Workmen's Compensation Board		8,564.00	
Agreement for sale		4,925.00	
			39,458.00

TRUST:

Investments, par value:			
Government of Canada, direct and guaranteed	\$1,360,300.00		
Provincial, direct and guaranteed	394,500.00		
Preferred shares	500.00		
	\$1,755,300.00		
Cash on hand and in bank		159,327.29	
Loans receivable		89,185.07	
Agreement for sale		500.00	
Real estate, shares and sundry, nominal value		8.00	
			2,004,320.36
			<u>\$14,969,864.17</u>

LIABILITIES

CAPITAL AND SURPLUS:

Capital provided by the Government of the Province of Alberta	\$10,002,489.24	
Capital surplus	1,760,078.54	
		\$11,762,567.78

LOAN PAYABLE:

Government of the Province of Alberta re Students' Union building, see contra		379,355.18
---	--	------------

CURRENT:

Bank overdrafts	\$ 353,163.80	
Accounts payable	184,546.22	
Imperial Bank of Canada loan	3,000.00	
Caferia tickets outstanding	247.96	
		540,957.98

DEFERRED INCOME:

Fees	\$ 5,729.75	
Other	3,135.00	
		8,864.75

RESERVES:

Unexpended library fees	\$ 30,172.05	
Premium on Rockefeller endowment	18,221.66	
Freight elevator	16,275.00	
Extraordinary maintenance and repairs	16,000.00	
Unexpended University Athletic Board fees	15,396.22	
Workmen's Compensation Board	13,798.22	
Blood plasma unit	10,000.00	
Rink repairs	9,583.03	
Dining room repairs and replacements	1,622.61	
Plant science field laboratory	527.40	
Provincial Laboratory of Public Health, operating	24,405.38	
Operating, general	117,796.55	
		273,798.12

TRUST:

General endowment Rockefeller Foundation	\$ 500,000.00	
Scholarships:		
Escheated estates	\$410,405.63	
General	323,730.02	
		734,135.65
Research	307,231.68	
Students grants and loans	120,614.55	
Pensions	89,411.89	
General educational purposes	65,974.70	
Sundry:		
Administered by the University	\$ 68,018.15	
Held on behalf of others	103,557.66	
		171,575.81
Due to general account	15,376.08	
		2,004,320.36
		<u>\$14,969,864.17</u>

Edmonton, Alberta, July 31, 1951

I have audited the books and records of the University of Alberta for the year ended March 31, 1951.

Operating Results

Operations for the year under review resulted in a deficit of \$36,174.73 after providing \$2,855.71 from current revenue for expenditure on new buildings and equipment. Details of operations are shown on Statement B.

The deficit for the year was transferred to operating reserve. Transactions within that reserve are set forth in Statement C.

Maintenance and upkeep of buildings used by the Faculty of Education in Edmonton and Calgary has been provided by the Province direct.

Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation, but an independent appraisal completed during the year ended March 31, 1950, indicates that values have been maintained through repairs and renewals, which have been financed from revenue and reserve accounts.

Inventories of merchandise for resale and supplies on hand are certified as to quantities and prices by officials of the University.

Capital and surplus transactions during the year are summarized hereunder:

Capital provided by the Government of the Province of Alberta:

Balance as at April 1, 1950	\$8,468,992.19	
Add:		
Library construction	646,820.24	
Power plant expansion	247,676.34	
Provincial laboratory of Public Health	244,075.71	
Other buildings and improvements	132,993.23	
Equipment	258,931.53	
Implementation of guarantee	3,000.00	
		\$10,002,489.24
Capital surplus:		
Balance as at April 1, 1950	\$1,566,069.66	
Add:		
Students' Union building transferred	163,441.06	
Buildings provided from reserve funds	19,772.20	
Equipment acquired from donated funds	2,000.00	
Income contributions:		
Library	21,049.23	
Buildings and equipment	2,855.71	
	\$1,775,187.86	
Deduct:		
Equipment sales and refund of duty	15,109.32	
		1,760,078.54
		<u>\$11,762,567.78</u>

Subject to the foregoing remarks, I certify that, in my opinion, the above Balance Sheet is properly drawn up so as to show the true financial position of the University of Alberta as at March 31, 1951, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets forth the result of operations for the year ended at that date.

C. K. HUCKVALE, C.A.

Provincial Auditor

UNIVERSITY OF ALBERTA
STATEMENT OF REVENUE AND EXPENDITURE
FOR THE YEAR ENDED MARCH 31, 1951

REVENUE

Grants:		
Province of Alberta:		
General	\$1,400,000.00	
Debt charges, see contra	303,075.42	
	<hr/>	
	\$1,703,075.42	
Government of Canada:		
Department of Veterans' Affairs, supplementary grant re rehabilitation students	70,507.89	
	<hr/>	\$ 1,773,583.31
Fees:		
Tuition, Schedule No. 7	\$ 626,642.76	
Examination and special, net, Schedule No. 8.....	6,125.73	
	<hr/>	632,768.49
Interest on Rockefeller Foundation endowment	\$ 15,416.66	
Deduct: Transferred to medical research trust	5,000.00	
	<hr/>	10,416.66
Library fees, see contra		20,202.27
University Athletic Board fees, see contra		15,575.92
Operating departments net revenue, Schedule No. 20 ...		37,035.86
		<hr/>
		\$ 2,489,582.51

EXPENDITURE

Instructional expense:		
Instructional salaries and direct expenses, net, Schedule No. 9	\$1,616,394.85	
Maintenance of buildings, Schedule No. 10	258,840.73	
Administrative salaries and expenses, Schedule No. 11	94,279.41	
Library salaries and expenses, Schedule No. 12 ...	76,778.35	
Upkeep of grounds, Schedule No. 13	32,843.40	
Provision for library accessions, see contra	20,202.27	
Provision for University Athletic Board expenses, see contra	15,575.92	
Calendar, scientific and other publications, Sche- dule No. 14	11,585.34	
Alumni office, Schedule No. 15	7,031.64	
Student guidance office, Schedule No. 16.....	5,312.02	
Provost's office, Schedule No. 17.....	5,311.69	
Travelling expenses, instructional staff	3,445.67	
Pension arrears, Schedule No. 18	3,048.24	
Exchange	93.04	
	<hr/>	\$ 2,150,742.57
Public service departments net expenditure, Schedule No. 19		69,083.54
Debt charges, see contra		303,075.42
Building and equipment purchased from income, Schedule No. 6		2,855.71
		<hr/>
		\$ 2,525,757.24
Deficit for the year ended March 31, 1951, transferred to operating reserve		
		<hr/>
		\$ 36,174.73

STATEMENT C

UNIVERSITY OF ALBERTA

STATEMENT OF OPERATING RESERVE

FOR THE YEAR ENDED MARCH 31, 1951

Balance as at April 1, 1950		\$ 170,770.77
Add:		
Adjustments in respect of previous years:		
Rental and sale of equipment	\$ 14,351.08	
Refund of duty	2,646.96	
Sale of steam	2,218.48	
Miscellaneous	75.86	
		<u>19,292.38</u>
		\$ 190,063.15
Deduct:		
Deficit for the year ended March 31, 1951.....	\$ 36,174.73	
Provision for freight elevator	16,275.00	
Transfer to Provincial Laboratory of Public Health operating reserve, being the excess of revenue over expenditure	11,437.32	
Expenditure on new faculty garages	6,879.55	
Subsidy to Studio Theatre	1,500.00	
		<u>72,266.60</u>
Balance as at March 31, 1951.....		<u><u>\$ 117,796.55</u></u>

*To the Governors of the
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30, 1951.

A. STEWART
President

The Report of the President

As presented to Convocation, October 28, 1950.

The annual report of the President is made to the May Convocation. My report at this time refers to intersession activities.

Since the Convocation in May there have been two changes in the administration of the University. After ten years of generous service to the University of Alberta, Mr. Justice H. H. Parlee retired from the office of Chairman of the Board of Governors on May 18; and was succeeded by Mr. C. M. Macleod, K.C. The University is indebted to Mr. Parlee and we may be assured of his continuing interest. We welcome Mr. Macleod and hope that he may find in his duties a satisfying opportunity for service to education in this Province.

Dr. Robert Newton retired from the position of President on August 31, after piloting the University through the rough seas of the war and post-war years. We are happy that Dr. Newton has accepted the position of Director of the Research Council of Alberta, and are confident that the mutually advantageous relations between the University and the Research Council will thereby be strengthened.

The Director of the 1950 Summer Session reported a peak attendance of 1,701 students, including 36 students in courses offered in Calgary. Fifty-three members of the University staff were engaged in instruction at the Summer Session. Of the visiting instructors, four were secured from the United States. Seventy-five courses and fifteen half-courses were offered. Having completed the three-year term, Dr. G. M. Dunlop has retired as Director of the Summer Session and has been succeeded by Dr. J. W. Gillies. I am pleased to pay tribute to Dr. Dunlop's able administration.

The fine chalets provided by the Col. J. H. Woods Memorial gift and the acquisition of Holiday House under lease contributed to another successful year for the Banff School of Fine Arts. During the period June 25 to August 19, 494 students attended classes in Drama, Music, Painting, Applied Art, Creative Writing, and Oral French. I had the opportunity to inspect the School during the concluding week. The enthusiasm of the students, and the high quality of the work displayed, were evidence of skilled instruction and of effective organization by the Director, Mr. Donald Cameron.

In addition to participating in the Summer Session and the Banff School of Fine Arts, members of the staff have engaged in a variety of activities, all of which contribute to the effective functioning of the University.

A substantial number have pursued graduate studies at Universities from Columbia, New York, to Stanford, California. The collective contact so obtained is invigorating to the life of the University of Alberta. Other stimulating associations result from attendance at meetings of professional and technical organizations. During the past summer three members of our staff were in Europe to attend international conferences, and many others represented this University at meetings in other parts of Canada and in the United States.

A number of Departments have sponsored Refresher Courses, as in Dentistry

and Pharmacy, or in conjunction with the Extension Department have participated in Short Courses, for example, the Frozen Food Locker Plant Short Course of the Department of Dairying, and the several "schools"—"Mud", "Oil Testing", "Gas Metering", "Management" and "Supervisory Training"—of the Department of Chemical Engineering.

In the literary Departments there has been the opportunity for writing and the preparation of manuscripts for publication.

The Departments of Geology, Soils, Botany, Zoology, and Entomology have taken part in field studies covering Pleistocene geology, barren lands, irrigation lands, strip coal mining areas, aerobiological surveys, ecological investigations in Northern Alberta, tapeworm infestation of whitefish, and biting flies.

Members of the Departments of Physics, Chemistry, and Pharmacy assisted in projects of the National Research Council, in Ottawa; the Radioactivity Laboratory, Department of Lands and Mines, in Ottawa; and the Office of Naval Research, United States Government, in California. Utilizing the facilities here, and directing the work of a large number of research assistants, other scientific Departments have been active with research projects too numerous to mention.

The staff of the Faculty of Agriculture have continued to serve the farm people through extension lectures, field days, and technical research. The Faculty of Agriculture, the University and this Province suffered a severe loss in the death of Dean R. D. Sinclair, who was beloved and esteemed by all who knew him.

The number of full-time students registered in the 1950-51 session is 3,598. This compares with 4,136 in 1949-50. Some decline in registration was expected, as the result of the graduation of large classes, including many veterans, in May, 1950. However, the decrease is larger than anticipated, there being 132 fewer new students in the first year. This points up a condition which has received the attention of our Senate. The number of students completing the requirements for general matriculation in the 1950 Grade Twelve examinations was 937. Registration of new students in first year was 1,005. It is a matter of concern that apparently not enough students are completing high school, and that too few high school students are coming forward to the University to meet the needs for University graduates in this Province.

The Report of the President

As presented to Convocation May 16, 1951

In presenting the Report of the President on the two days of Convocation, I propose, on this first day, to report on the activities of the University. Tomorrow, I shall deal with some aspects of the financial position of the University in 1950-51, and in prospect.

Registration of students in the winter session reached a peak of 4,865 in 1947-48. The corresponding enrolment in 1950-51 was 3,730. A decline to about 3,330 is expected to occur in 1951-52. The continual decrease in numbers reflects, in the main, the graduation of student veterans. This year 481 student veterans were registered at the University of Alberta; some 200 may be in attendance next year. Future enrolments at the University will depend upon the flow of students from the high schools of the Province.

During the year, General Faculty Council received and approved the report of the Joint Committee, of the Department of Education and General Faculty Council,

on Articulation. Subsequently new matriculation requirements, covering admission to all faculties, were announced effective 1952-53. A reduction in required subjects, from seven to six, offers greater flexibility in the choice of subjects in the high school, and, it is hoped, will enable more students to meet matriculation requirements, possibly after one year in Grade 12. An increase in the required Grade 12 average, from 50 to 60, will eliminate some prospective students. However, experience has shown that the results of the Grade 12 examinations are still the best test of competence to meet the University's requirements, and that students admitted with an average of less than 60 in their Grade 12 subjects are, with few exceptions, unable to meet the normal standards for promotion through their University course.

The Provost, Prof. H. T. Sparby, states in his report to General Faculty Council: "Student government at the University of Alberta has been well sustained this year. Not only have student activities been capably managed, but relationships between student officers and the University Administration have been cordial and cooperative. This happy state of affairs was due in no small measure to the very able leadership provided by Mr. Michael O'Byrne, President of the Students' Union. . . . This has been the first year of operation of the new Students' Union Building. The House Committee which was set up to administer and supervise the building has discharged its responsibilities ably and well. . . . All the facilities provided by the building, offices, conference rooms, lounges and the games room, have served a wide range of student social and business needs throughout the year, and there are indications that the building will be put to even greater use in the succeeding years."

In acknowledging the satisfactory state of student affairs, I must mention, the Provost, the Dean of Women, a position to which Miss Maimie Simpson was recently appointed, and the Director of Student Advisory Services. The latter position, to which Dr. A. J. Cook was appointed during the year, is already proving an important factor in assisting students to adjust themselves to the University situation. Through the counselling services of the Director students are being helped in their personal and academic problems.

With decreasing registrations, the ratio of students to staff, which became excessive in the years of peak enrolments, has returned to its pre-war level. Some classes, for example English 2 with a registration of 570, are still too large for effective instruction, and the increase in number of graduate students bears heavily on some departments. The Department of Geology, for example, finds that, to meet the qualifications required in employment, students are returning to obtain their Master's degree. Evidence of maturity of the University, and of the reputation of the staff, is to be found in applications to the School of Graduate Studies for admission to a program leading to the degree of Doctor of Philosophy. Three applications have been accepted—two in the Department of Biochemistry and one in the Department of Plant Science.

During the year, the University has lost three of its valued teachers by death. These include Dr. T. H. Field, Honorary Instructor in Clinical Medicine, and Dr. W. N. Gourlay, Instructor in Clinical Surgery. At the October Convocation, I expressed the University's deep sense of loss through the death of Dean Sinclair. His successor, Dr. A. G. McCalla, whose appointment was recently announced, has been a member of the Department of Plant Science since 1940. The University will be well served by him.

Two members of the staff, Dr. J. J. Ower, Professor of Pathology, and Dr. R. J. Lang, Professor of Physics, have reached the age of retirement after long periods of faithful service for which the University is grateful; and Mr. L. Y. Cairns, who for over 20 years has taught Practice to Law students in the early morning, and for many years has taught Commercial Law to Commerce students in the late evening, has at last convinced us that he will not turn up in his accustomed places next year. Mr. Cairns was a devoted teacher and, in Dean Bowker's words, "His influence on many students extends far beyond the subject matter of his courses".

It cannot be repeated too often that the real work of the University is done in the class room and laboratory. It is the diligent, often discouraging, and never-spectacular efforts of the instructor which count. I am happy to report that the University of Alberta is well served in the Departments, and wish to record my thanks to the teaching staff for their faithful service and generous co-operation in the past year.

Research in a university serves a number of important purposes. The opportunity for research is a condition necessary to attract and retain staff with a live interest in their field of study. Research carried on in the Departments is a means of introducing senior and graduate students to the techniques for the pursuit of new knowledge. Research produces new knowledge and adds to human welfare. The University which ceases to apply part of its energies to research is already dead. I am happy to report ample evidence of life and vitality at the University of Alberta. We are grateful for improved facilities for research. In some areas of knowledge the library is the research laboratory. The new Rutherford Library, with its splendid facilities, will not only provide an adequate workshop for the students, but will also offer conditions for library research which are welcomed by many of the staff. A similarly encouraging and stimulating development is the gift from the Alberta Cancer Society to be used in constructing and equipping a Cancer Research Laboratory. This building, when available, will be used to carry on and expand important research supported by the National Research Council, the Defence Research Board, and the Cancer Institute of Canada. The opening of the new building to house the Provincial Laboratory of Public Health has not only provided the kind of facilities this institution has needed for years, but has released space urgently required by the Departments of Bacteriology and Pathology in the Medical Building.

I can do no more than illustrate the achievements of the staff in the broad field of scholarship and research during the present year. The Departments report no less than 135 bulletins, papers and articles published during the year. Dr. Scargill, Department of English, has followed his translation of "Three Icelandic Sagas", done in collaboration with Margaret Schlauch and published by the Princeton University Press, by a book on "The Development of the Principal Sounds of Indo-European," published by the University of Toronto Press, and Dean MacDonald has found time to prepare a manuscript on "Education for Civilized Living," which has been accepted by the University of Chicago Press for publication and will appear within the next year.

Research conducted under the direction of the Departments, with the aid of graduate students, can be illustrated by the Department of Chemical Engineering. This Department has, along with other projects, been engaged on the following studies: The Catalytic Oxidation of Redwater Asphalt Base Stock, with the assistance

of a Shell Oil Fellowship; The Construction of an Electrical Model of a Petroleum Reservoir, with an Imperial Oil Fellowship; and Crude Oil Rheology and Pipeline Flow Problems, with an Interprovincial Pipeline Fellowship.

Research in the Faculty of Agriculture continues to be directed toward the solution of specific problems confronting the industry as well as to enquiries of a fundamental scientific nature. Valuable experiments have been conducted in the use of antibiotics in livestock feeding supplements, and in plant disease control. Experiments with radioactive sulphur have yielded important information on the use of this chemical by legume and grain crops. The basic physiological effects of 2,4-D and other hormones, for use in weed control, have been studied and results published. Important progress has been made in the field of cytogenetics. You will be interested to know that the Canadian Broadcasting Corporation is arranging to prepare, during the summer months, a documentary broadcast dealing with the research work of the Department of Plant Science.

The University is maintained to serve the people of this Province. In addition to teaching and research it has an important function in the field of Extension. Here too the record of the year reflects increasingly effective service. While work in this field is, in the main, directed by the Department of Extension, I must remind you that much of the effort of this Department would be impossible without the contribution of those attached to the instructional Departments.

The number of short courses, classes and conferences arranged and organized by the University reached a total of 86, compared with 54 in 1948-49. New courses offered this year include: a ten-week course in Personal Testing Methods sponsored by the Edmonton Personnel Association and the Department of Psychology; a course in Rural Leadership sponsored by the farm organizations; courses entitled "Improving Nursing Care" held in Edmonton, Calgary, and Lethbridge; and a specialized course in Nursing Service Personnel for nurses from Edmonton and district. Sixty-four purchasing agents attended a series of lectures on the problems of bulk buying. The Third Mud School for men in the oil-drilling industry was followed by a two-week Oil-Treating School and a Gas-Testing School for other specialized workers in the industry. A Management Institute for oil executives was held in Calgary. Ten Provincial Government Game Wardens attended an intensive three-day course in Fishery Management under the direction of the Department of Zoology.

A particularly important innovation of the year was the series of evening classes offered at the University. Ten courses were attended by 750 persons. The results were such as to justify an extension of the program next year; and General Faculty Council has set up a Committee to consider the possibility of instituting late afternoon or evening classes for University credit toward certain degrees.

The Banff School of Fine Arts and the Department of Fine Arts continue to make an outstanding contribution to the promotion of the Arts throughout the Province. The Banff School and its Director, Mr. Donald Cameron, received a well-deserved tribute when the School was awarded the Henry Marshall Tory Trophy for outstanding service to the Canadian community in the field of adult education. Through the Banff School, and with the support of the appropriate national organizations, the University is now offering national awards for outstanding contributions in Letters, Music, Painting and Related Arts. Announcement of the names of those receiving these awards for 1951 may be expected soon.

The Community Art Classes, conducted by members of the Art Division of the Department of Fine Arts, attracted 500 students to classes at 27 points in the Province. The Music Division of the same Department directed the affairs of the Western Board of Music; the Mixed Chorus made another successful tour of the Province. In its first year the Studio Theatre, directed by the Drama Division, staged five productions, each running for ten nights. The high quality of the performances and the public support have amply justified this project. Difficulties of time and movement prevented the plays being staged in other parts of the Province, although the last production—"Macbeth"—played in Red Deer for two nights.

In summing up, I can report with confidence that your University, in fulfilling its functions in this Province, continues to maintain those standards which have already won it the respect of the citizens of Alberta as well as of other institutions of higher education throughout Canada and in the rest of the world.

The Report of the President

As Presented to Convocation, May 17, 1951

Yesterday I referred to various features of the life and work of the University of Alberta during the year 1950-51. This afternoon I shall report on some aspects of the financial position of the University.

In common with the other universities of the country, the position of the University is affected by two factors: first, the decline in revenue from fees and from the supplementary grant of the Department of Veterans Affairs; and, second, the continuous pressure on costs resulting from the general inflationary tendencies. It is possible today to refer only to the first of these factors.

In 1947-48, when registrations during the winter session reached the peak figure of 4,865, the University received a total of \$688,552 in tuition fees, or an average of \$140 per student. The fees of student veterans were paid by the Department of Veterans Affairs, and in addition this department of the Federal Government paid to the University a supplementary grant of \$150 per student veteran toward the additional costs which the influx of student veterans would necessarily occasion. The total supplementary grant, 1947-48, amounted to \$334,589. From this source and from tuition fees the University received \$1,023,141.

In 1950-51, when only 481 student veterans were in attendance, and total registrations had dropped to 3,730, the supplementary grant from the Department of Veterans Affairs was \$70,500, and \$601,000 was received from tuition fees—an average of \$161.13 per student. The total revenue from these sources was \$671,500, or \$351,641 less than in 1947-48.

Proceeding into 1951-52, the University faced a further estimated decrease in registrations to 3,330, which, at the fees prevailing in 1950-51, would have meant a further substantial decline in revenues; and, in addition, the University was confronted with the cessation of the supplementary grant.

Another source of revenue is found in the operating departments, which include the bookstore, cafeterias, and residences with their dining halls. The University has never sought any substantial net revenue from these services provided for the students. In early years it was possible to operate the service departments, keeping prices reasonable to the student, and to record a small profit. In 1938-39, the cost

of room and board in the residences was \$30 per month. After the war when the residences were returned to the University, rates were set at \$40. Successive increases brought the charge, for a double room, to \$52 in 1950-51. The increase in rates between 1938-39 and 1950-51, using the double room, was 73 per cent. Since the war, the residences have consistently shown a deficit on operations. The deficit in 1950-51 was in the order of \$18,000.

Still another source of revenue is from endowments. In the case of the privately-supported universities this is a major source of income. In 1938-39, the University of Alberta received \$12,500 in revenue from this source, and exactly the same amount in 1950-51. It is true that the University receives substantial grants in aid of research from various sources, but these are provided only to meet additional out-of-pocket expenses associated with the specific research. They do not provide any net revenue to assist in meeting administrative and instructional costs.

The final source of revenue is the operating grant from the Province of Alberta. In 1947-48, the Provincial grant amounted to \$977,340. As University revenues from other sources diminished the grant was progressively increased to \$1,400,000 in 1950-51. In 1947-48, the grant represented 47.9 per cent of total revenue of the University; in 1950-51, 65.9 per cent. In 1947-48, the grant was equivalent to \$201 per student; in 1950-51, \$375 per student.

In these circumstances, faced with increasing costs, and despite an increase in the Provincial grant to \$1,700,000, for 1951-52 an increase in tuition fees could not be avoided. The University has therefore announced increases in tuition fees equivalent to an over-all increase of about 20 per cent. Depending on actual registrations next year, this increase in rates of fees may be expected to bring in the same revenue as in 1950-51. The University has also announced an increase in the rates for room and board in the residences. This increase is not in itself expected to be sufficient to clear the deficit and meet anticipated higher costs of food. It will be necessary to make some reductions in the services offered in the residences.

The circumstances I have described are common across the country. Practically all universities have announced increases in charges to students. The new fees at the University of Alberta are not high in comparison with fees in other Canadian universities. They are, indeed, lower than most. Nor can it be said that the charges to students have, in the post-war period, risen in proportion to the general rise in the prices of goods and services and in money incomes generally. It follows that many Alberta students are better able to meet the new charges than are many students in other provinces and than were many students in the pre-war years.

However, other considerations are important. Referring to the problem of fees in Canadian universities, Principal James of McGill has recently stated: "In point of fact, a young Canadian from a family in modest circumstances has less chance of getting a university education today than the youth of any other country with which I am familiar".

It is sound policy that university students who receive substantial benefits from the opportunity afforded them at a publicly supported institution should make a significant contribution toward the cost of their university education. Because of wide general benefits accruing to the community from citizens with a training which can be obtained only at the universities, it has never been and never will be sound policy to bar from the universities young men and women who have the ability and willingness to work, merely because of financial incapacity.

With the raising of the level of fees it is imperative that the universities seek additional scholarships, and endeavour to extend the loan-fund resources at their disposal. Today the number of scholarships available to students in Canada is less than in any other English-speaking country. A survey of 16 of the larger Canadian universities shows that in 1948-49 only 8 per cent of the students were receiving any form of scholarship. In Great Britain 41 per cent of all students attending university were in receipt of scholarships or bursaries in 1935-36. By 1948-49 this percentage had risen to 74 per cent, while in Oxford and Cambridge more than 80 per cent of the students were receiving financial assistance. In Australia 58 per cent were assisted in 1949, and in 1950 the present Commonwealth Government set up 3,000 additional scholarships covering tuition, and board and lodging.

At the present time the problem of the capable student, with limited financial resources on which he can draw, is to decide between immediate employment, often offering substantial income at the moment, and a period of loss of earnings and direct investment in a university education, which ultimately will more than compensate for his investment. However, the heavy burden of present investment is such that the short-range solution of the problem is adopted. He chooses immediate employment rather than further training. From this point of view there is a strong case for the extended application of the loan principle. The loan meets the immediate investment problem; it can be returned as the investments begins to pay dividends.

During the depression period the Dominion of Canada entered into an arrangement with the Provinces to provide assistance for technical training. Today the university has available to it limited Dominion-Provincial funds to be loaned to approved applicants. After the war, the Dominion of Canada embarked upon an educational rehabilitation program by which veterans received the opportunity of a university education. More than 50,000 veterans embarked on the program; more than 40,000 will graduate. The Dominion Government paid nearly \$33,000,000 to the universities to cover fees; it paid out more than \$90,000,000 in living allowances to student veterans; the supplementary grants to the universities aggregate more than \$18,000,000.

Neither of these programs of the Dominion of Canada was introduced merely to assist individuals or to compensate those assisted for services rendered to the country. They were introduced mainly to meet a national need and to advance the national interest. The veteran rehabilitation program, perhaps the finest experiment of its kind ever attempted, succeeded magnificently. Today, the national need is again urgent. The need is not solely for technical training; there is need too for a general elevation of the spirit and strengthening of the intellectual support of democracy. But there is an imperative need for technically trained personnel, if this country is to meet its obligations as a member of the community of free nations, in industrial expansion based on the resources of the country and in the creation of the means for adequate defence. Impoverished universities cannot meet this need. Depleted enrollments will leave the need unfilled. The problem is seen most clearly and felt most keenly by those closely concerned with university administration, but the problem is also one of national extent and of national concern. It can only be solved on a national scale by the Federal Government, but each individual in Canada who is able to help can derive immense personal satisfaction and make a significant contribution to the progress of our country by doing what he can to aid deserving students to begin a university career.

Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence; retirements; resignations; student registration; gifts; new scholarships, prizes and medals; staff publications; and excerpts from the reports of administrative officers.

Table I.—Academic Staff Numbers

<i>Administrative Officers</i>			
President	1		
Assistant to the President	1		
Deans of Faculties	7		
Directors of Schools	5		
Director of the Calgary Branch	1		
Director of the Summer Session	1		
Provost	1		
Assistant Provost, Calgary Branch	1		
Director of Student Advisory Services	1		
Adviser to Women Students	1		
Librarian	1		
Superintendent of the University Hospital	1		
Registrar	1		
Assistant Registrar	1		
Bursar	1		
Accountant	1		
Purchasing Agent	1		
Wardens of Residence Halls	3		
Alumni Secretary	1		
	—	31	
<i>Full-time Teaching Staff</i>			
Professors	57		
Associate Professors	36		
Assistant Professors	69		
Lecturers	44		
Instructors	22		
	—	228	
On leave of absence:			
Professors	2		
Associate Professors	2		
Assistant Professors	3		
Lecturers	2		
<i>Part-time Teaching Staff</i>			
Professors	5		
Associate Professors	8		
Clinical Professors	10		
Assistant Professors	4		
Associate Clinical Professor	1		
Assistant Clinical Professor	1		
Lecturers	39		
Instructors	99		
Demonstrators in the Faculty of Education	172*		
Demonstrators and student assistants	140		
	—	479	
<i>School of Nursing</i>			
Director	1		
Superintendent of Nursing Service	1		
Supervisor of Instruction	1		
Adviser to Schools of Nursing and Lecturer	1		
Lecturer	1		
Demonstrator	1		
	—	6	

Department of Extension

Director	1	
Reference Librarian	1	
Chief Cataloguer	1	
Circulation Librarian	1	
Medical Librarian	1	
Order Librarian	1	
Education Librarian, Edmonton	1	
Education Librarian, Calgary	1	
Assistants	5	
	—	13

Industrial Laboratories

Director and Provincial Analyst	1	
Assistant	1	
	—	2

Provincial Laboratory of Public Health

Director and Provincial Bacteriologist	1	
Director of the Calgary Branch	1	
Pathologist and Provincial Serologist	1	
Assistants	4	
	—	7

Other Academic Staff

Dietitians	3	
Radio Secretary	1	
	—	4

Total	775	
Less duplicates	35	

<i>Total Academic Staff</i>	740*	
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*Increase over 1949-50 due to rural practice teaching demonstrators, Faculty of Education.

Table II.—Academic Staff Appointments and Promotions

Faculty of Arts and Science

- Robert Kay Gordon, B.A., M.A., Ph.D., F.R.S.C., Professor Emeritus of English.
- Ross William Collins, M.A., B.D., Ph.D., F.R.Hist.S., from Associate Professor to Professor of History.
- John Thomas Jones, M.A., from Associate Professor to Professor of English.
- Ernest Sydney Keeping, B.Sc., D.I.C., from Associate Professor to Professor of Mathematics.
- Richard Birnie Miller, M.A., Ph.D., from Associate Professor to Professor of Zoology.
- Ralph Leslie Rutherford, M.Sc., Ph.D., F.R.S.C., from Associate Professor to Professor of Geology.
- Frederick Millet Salter, B.A., M.A., F.R.S.C., from Associate Professor to Professor of English.
- Robert Edward Folinsbee, B.Sc., M.Sc., Ph.D., from Assistant Professor to Associate Professor of Geology.
- Edward Hunter Gowan, B.A., B.Sc., Ph.D., F.R.Met.S., from Assistant Professor to Associate Professor of Physics.

John Lewis Morrison, M.Sc., Ph.D., from Assistant Professor to Associate Professor of Chemistry.

Eric Mueller, M.A., Ph.D., from Assistant Professor to Associate Professor of Modern Languages.

James Howden Whyte, B.Sc., M.Sc., Ph.D., from Assistant Professor to Associate Professor of Botany.

Max Wyman, B.Sc., Ph.D., from Assistant Professor to Associate Professor of Mathematics.

Frank Donald Blackley, M.A., Assistant Professor of History.

Stewart Clare, B.A., M.S., Ph.D., from Lecturer to Assistant Professor of Zoology.

Douglas Richard Crosby, B.Sc., Ph.D., Assistant Professor of Mathematics.

Walter Dunham Gainer, B.Sc., M.S., Assistant Professor of Political Economy (Business Administration).

Eric John Hanson, B.A., M.A., from Lecturer to Assistant Professor of Political Economy.

Edward Moore, M.A., Ph.D., from Lecturer to Assistant Professor of Zoology.

Charles Richard Stelck, M.Sc., from Lecturer to Assistant Professor of Geology.

John Benjamin Taylor, A.O.C.A., from Lecturer to Assistant Professor of Art.

Andrew Thomas Elder, B.A., M.A., Lecturer in English.

Lawrence Archibald Fisher, B.Sc., M.Ed., from Sessional Instructor to Lecturer in Mathematics.

Denis Rowley Godfrey, B.A., Ph.D., Lecturer in English.

Margery Walker MacKenzie, B.A., B.Ed., from Instructor to Lecturer in Classics.

Gwytha Evans, to be part-time Extension Lecturer in Art.

Janet Middleton, to be part-time Extension Lecturer in Art.

Anne Turner, to be business assistant in the Drama Division, Department of Fine Arts.

Beverly Wilson, to be technical assistant in the Drama Division, Department of Fine Arts.

John Alexander Boan, B.A., part-time Sessional Instructor in Political Economy.

Hugh Brian Dunford, B.Sc., Sessional Instructor in Chemistry.

Varge Gilchrist, B.Sc., part-time Sessional Instructor in Political Economy.

Allan Stuart Hay, B.Sc., Sessional Instructor in Chemistry.

Isobel Lillian Janette Johnson, B.A., part-time Sessional Instructor in French.

Elfriede Luise Milbradt, B.Ed., Sessional Instructor in German.

Peter MacLaren Roberts, B.Ed., part-time Sessional Instructor in English.

Hubert Sampson, M.A., Sessional Instructor in Psychology.

Dorothy Kimball Shaner, B.Sc., Sessional Instructor in Mathematics.

Harold Victor Weekes, M.A., Sessional Instructor in English.

School of Commerce

John Douglas Campbell, M.Com., C.A., from Associate Professor to Professor of Accounting.

Denis Goodale, B.Com., C.A., Assistant Professor of Accounting.

School of Household Economics

Hazel McIntyre, B.Sc., M.S., from Assistant Professor to Associate Professor of Household Economics.

Faculty of Agriculture

- LeRoy Peter Vernon Johnson, M.Sc., Ph.D., from Associate Professor to Professor of Genetics and Plant Breeding.
- Laird Ward McElroy, M.Sc., Ph.D., from Associate Professor to Professor of Animal Husbandry.
- Charles Fred Bentley, M.Sc., Ph.D., from Assistant Professor to Associate Professor of Soils.
- William George Corns, M.Sc., Ph.D., from Assistant Professor to Associate Professor of Plant Science.
- Alexander Robinson Robblee, M.Sc., Ph.D., from Assistant Professor to Associate Professor of Poultry Husbandry.
- John Unrau, B.S.A., M.Sc., Ph.D., from Assistant Professor to Associate Professor of Genetics and Plant Breeding.
- Warren Edward Smith, M.Sc., from Lecturer to Assistant Professor of Field Crops.
- Barney Thorvaldur Stephanson, B.E., from Lecturer to Assistant Professor of Agricultural Engineering.
- Roy Torgny Berg, B.Sc., Lecturer in Animal Husbandry.
- Fenton Vincent MacHardy, B.E., Lecturer in Agricultural Engineering.
- Svend Aage Hansen, B.Sc., Sessional Instructor in Dairying.

Faculty of Dentistry

- Robert Arthur Rooney, D.D.S., Honorary Professor of Prosthetic Dentistry.
- Benjamin Joseph Eastwood, D.D.S., from Sessional Instructor to Lecturer in Orthodontics.
- Kay Ardell Burnham, D.D.S., Sessional Instructor in Prosthetic Dentistry.

Faculty of Education

- Herbert Edgar Smith, B.A., M.A., M.Ed., Ph.D., Dean of the Faculty of Education.
- George Murray Dunlop, M.A., from Associate Professor to Professor of Education.
- William Dewar McDougall, M.A., Ed.D., from Associate Professor to Professor of Education.
- Harold Stewart Baker, B.A., M.A., Ph.D., L.A.B., from Assistant Professor to Associate Professor of Education.
- Rae MacIntyre Chittick, R.N., B.Sc., M.A., from Assistant Professor to Associate Professor of Education.
- Theophilus George Finn, B.A., M.A., Ed.D., from Assistant Professor to Associate Professor of Education.
- John Douglas Aikenhead, B.Sc., M.A., Assistant Professor of Education, Calgary Branch.
- Brigham Young Card, B.Sc., B.Ed., Assistant Professor of Education.
- Stanley Charles Clarke, M.A., M.Ed., Ed.D., Assistant Professor of Education.
- Robert Ellsworth Rees, B.A., B.Ed., Ph.D., Assistant Professor of Education.
- Helen Barbara Stadelbauer, B.Sc., M.A., from Lecturer to Assistant Professor of Education.
- Jean Downie Dey, Lecturer in Education.
- Eleanor Winnifred Jamieson, R.N., B.Sc., Lecturer in Education, Calgary Branch.

Faculty of Engineering

William Walford Preston, B.Sc., from Assistant Professor to Associate Professor of Drawing and Descriptive Geometry.

Ralph Norman McManus, M.Sc., from Lecturer to Assistant Professor of Civil Engineering.

Andrew Lee Scott, M.A.Sc., from Lecturer to Assistant Professor of Chemical Engineering.

Jack Eng, B.A.Sc., Sessional Instructor in Chemical and Petroleum Engineering.

Richard Fisher Gee, B.Sc., Sessional Instructor in Mining and Metallurgy.

Stanley Hayden, Sessional Instructor in Mechanical Engineering.

Vernon Carl Larson, B.Sc., Sessional Instructor in Electrical Engineering.

Doald Edgar Anderson MacKay, B.Eng., M.Com., part-time Sessional Instructor in Mechanical Engineering.

Milton John Ozubko, B.Sc., Sessional Instructor in Electrical Engineering.

James Francis Probert, B.Sc., Sessional Instructor in Electrical Engineering.

Frank Scott Sheriff, B.Sc., Sessional Instructor in Chemical Engineering.

Donald Rae Sutherland, B.Sc., Sessional Instructor in Civil Engineering.

Harold Lavell Morrison, B.Sc., Sessional Demonstrator in Civil Engineering.

Faculty of Law

Alexander Smith, B.A., LL.B., from Associate Professor to Professor of Law.

Andrew Royden Thompson, LL.B., Assistant Professor of Law.

Donald Mercer Cormie, B.A., LL.B., LL.M., Sessional Instructor in Law.

Harris Gillespie Field, B.A., LL.B., Sessional Instructor in Law.

William Heman Hurlburt, B.A., LL.B., Sessional Instructor in Law.

Peter Martin Owen, LL.B., Sessional Instructor in Law.

John Douglas Park, B.A., LL.B., Sessional Instructor in Law.

John Winfred Karan Shortreed, B.A., LL.B., Sessional Instructor in Law.

William Robert Sinclair, B.Com., LL.B., Sessional Instructor in Law.

Faculty of Medicine

Irving Russell Bell, B.A., M.B., F.R.C.P.(C), F.A.C.P., Honorary Professor of Therapeutics.

Nathaniel James Minish, M.D., Honorary Professor of Anatomy.

Walter Hepburn Scott, M.C., M.D., C.M., F.R.C.P.(C), Honorary Clinical Professor of Medicine.

Walter Raymond Salt, M.Sc., Secretary of the Faculty of Medicine.

Walter Campbell MacKenzie, B.Sc., M.D., C.M., M.Sc., F.A.C.S., F.R.C.S.(C), from Clinical Professor to Professor of Surgery.

Roy Llewellyn Anderson, M.D., F.R.C.S.(C), F.A.C.S., from Clinical Professor to Associate Professor of Surgery.

Walter Stirling Anderson, M.D., F.R.C.S.(C), F.A.C.S., from Clinical Professor to Associate Professor of Surgery.

James Scott Thompson, M.A., M.D., Associate Professor of Anatomy.

Douglas Oliver William Waugh, M.D., C.M., M.Sc., Ph.D., Associate Professor of Pathology and Assistant Provincial Pathologist.

Donald Robert Wilson, B.A., M.D., C.M., F.R.C.P.(C), from Assistant Professor to Associate Professor of Medicine.

Charles Bramwell Rich, B.S., M.R.C.S., L.R.C.P., F.R.C.P.(C), from Assistant Clinical Professor to Clinical Professor of Medicine.

Robert Kenneth Colquhoun Thomson, B.Sc., M.D., from Assistant Clinical Professor to Clinical Professor Neurology.

Samuel Hanson, m.i.d., M.D., from Lecturer to Assistant Professor of Pathology.

James Francis Elliott, B.A., M.D., F.R.C.P.(C), from Lecturer to Assistant Clinical Professor of Medicine.

Gordon Irving Bell, B.A., M.D., from Instructor to Lecturer in Clinical Medicine.

Robert Edward Bell, M.D., Lecturer in Clinical Pathology.

Edward Ferris Donald, M.D., from Instructor to Lecturer in Clinical Medicine.

Frederick George Elliott, M.D., C.M., F.A.C.P., from Instructor to Lecturer in Clinical Medicine.

William Bernard Leach, M.D., M.Sc., Sessional Lecturer in Pathology.

Herbert Henry Stephens, M.D., Lecturer in Clinical Medicine.

Charles Alex Allard, M.D., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

Brock Heman Armstrong, M.D., Sessional Instructor in Pediatrics.

William Robert Barclay, M.D., Sessional Instructor in Clinical Surgery.

James Andrew Beveridge, B.Sc., M.S., Sessional Instructor in Hygiene.

John Winston Duggan, M.D., M.M.S., Sessional Instructor in Ophthalmology.

Joseph Dvorkin, B.A., M.D., Sessional Instructor in Clinical Medicine.

Georges Phillippe Fortier, B.A., M.D., F.R.C.S.(C), Sessional Instructor in Obstetrics and Gynecology.

Thomas Alfred Gander, M.B.E., M.D., Sessional Instructor in Pediatrics.

James Alan Longmore Gilbert, M.B., Ch.B., M.D., F.R.C.P., M.R.C.P., Sessional Instructor in Clinical Medicine.

Robert Cameron Harrison, M.D., F.R.C.S.(C), M.S., Instructor in Clinical Surgery.

Charles Heath, B.Sc., Sessional Instructor in Physiology.

Bohdan Michalshyn, M.D., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

Joseph Paul Moreau, B.A., M.D., F.R.C.S.(C), Sessional Instructor in Orthopedic Surgery.

Alan Brock McCarten, M.D., F.R.C.S., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

Clifford George Preece, M.D., Sessional Instructor in Clinical Medicine.

Eby Quehl, m.i.d., M.D., M.R.C.O.G., Sessional Instructor in Obstetrics and Gynecology.

Benjamin Morrill Wheeler, M.B.E., M.D., F.R.C.P.(C), from Sessional Demonstrator to Session Instructor in Clinical Medicine.

George Leslie Willox, M.D., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

Samuel Stanley Hein, B.Sc., M.D., Sessional Demonstrator in Anatomy.

John George Medway, M.D., Sessional Demonstrator in Anatomy.

School of Nursing

Isabelle MacLean Reesor, B.Sc., M.A., R.N., Lecturer in Public Health and Health Education.

Orma Jacklin Smith, B.A., R.N., Adviser to Schools of Nursing and Lecturer in Nursing.

Jeanette Fairbairn Doull, R.N., Demonstrator in the Basic Sciences.

School of Pharmacy

John Randolph Murray, M.Sc., from Lecturer to Assistant Professor of Pharmacy.

Bernard Edward Riedel, M.Sc., from Lecturer to Assistant Professor of Pharmacy.

Douglas John Stewart, B.Sc., M.Sc., Sessional Lecturer in Pharmacy.

Department of Extension

Eric Wyld Cormack, C.G., O.B.E., B.Sc., Assistant Professor in Extension.

Library

Marjorie Anne Bailie, B.A., B.L.S., Library Assistant.

Phyllis Jeanine Russell, B.A., B.L.S., Library Assistant.

James Mills Shipley, B.A., LL.B., B.L.S., Library Assistant.

Other Appointments

Alexander Joseph Cook, B.Sc., M.A., Ph.D., from Associate Professor to Professor of Mathematics, and Director of Student Advisory Services.

John William Gilles, M.A., M.Ed., Ed.D., Director of the Summer Session.

Henry George Glyde, A.R.C.A., R.C.A., Curator of the Art Gallery and Museum.

Matthew Henry Scargill, B.A., Ph.D., Warden of Athabasca Hall.

Table III.—Leave of Absence for Advanced Study

Frederick Millet Salter, B.A., M.A., F.R.S.C., Professor of English (Sabbatical).

Alexander Smith, B.A., LL.B., Professor of Law.

Rae MacIntyre Chittick, R.N., B.Sc., M.A., Associate Professor of Education, Calgary Branch (Sabbatical).

Dennis McNeice Healy, M.B.E., psc., B.A., Dip.l'Et.Sup., L-ès-L., Docteur de l'Université, Associate Professor of Romance Languages (Sabbatical).

Ralph Norman McManus, M.Sc., Assistant Professor of Civil Engineering.

Bernard Edward Riedel, M.Sc., Assistant Professor of Pharmacy.

Warren Edward Smith, M.Sc., Assistant Professor of Field Crops.

Lloyd Muir Smith, M.Sc., Lecturer in Dairying.

Kenneth Alan McMurchy, B.A., D.D.S., Lecturer in Operative Dentistry.

Table IV.—Retirements

Robert Kay Gordon, B.A., M.A., Ph.D., F.R.S.C., Professor of English.

Robert Arthur Rooney, D.D.S., Professor of Prosthetic Dentistry.

Irving Russell Bell, B.A., M.B., F.R.C.P.(C), F.A.C.P., Professor of Therapeutics.

Nathaniel James Minish, M.D., Assistant Professor of Anatomy.

Walter Hepburn Scott, M.C., M.D., C.M., F.R.C.P.(C), Clinical Professor of Medicine.

Table V.—Resignations

Zella Jeanne Oliver, B.A., M.A., Assistant Professor of Education.

John Robert Stuart Jorgens, B.Sc., M.S., Assistant Professor of Farm Management.

Glen Ross Davison, M.D., C.M., Lecturer in Clinical Medicine.

John Kenneth Heath, M.C. and bar, B.A., M.A., Lecturer in English.

Frederick McPherson, B.Sc., Lecturer in Civil Engineering.

Albert William Hardy, M.D., F.A.C.S., Instructor in Anatomy.

Helen Elizabeth Farquharson, M.A., B.L.S., Chief Cataloguer, Library.

Norma Louise Watterberg, B.Sc., B.Sc. in L.S., Library Assistant.

Calgary:	14	17	28	35	42	52
B.Ed.—4 yr.	...	...	1	...	1	42
B.Ed. in H.Ec.	...	...	...	...	30	17
B.Ed. in Ind. Arts	9	11	...	...	17	156
Temporary Licence	36	37	120	119	157	...
B.Ed. after B.A., B.Sc., etc.	...	1	...	...	...	1
Partials	59	66	149	154	230	226
	3	12	13	23	16	36
Education—Full Time	296	271	550	557	955	898
6. Engineering:	88	122	1	1	199	159
Civil	68	64	1	1	137	84
Chemical	67	59	...	...	164	96
Electrical	16	26	...	...	59	42
Mining	68	70	...	...	109	96
Petroleum	1	2	...	...	1	4
Irrigation	7	4	...	...	12	5
Engineering Physics	3	6	...	...	3	6
Engineering Geology	67	42	...	...	71	43
Not specified	385	395	...	...	755	535
Partials	1	2	...	...	3	7
7. Household Economics:	...	...	68	68	68	68
B.Sc., H.Ec.	...	...	4	6	4	6
B.H.Ec.	...	...	72	74	72	74
8. Law	56	70	3	3	3	140
9. Medicine	66	93	10	10	14	197
10. Nursing:	...	...	...	...	...	...
B.Sc.	...	114	109	...	116	113
Diploma	...	124	131	...	124	131
Dip. in Public Health	...	10	5	...	10	5
Dip. in Teach. & Sup.	...	8	11	...	9	11
Partials	...	256	256	256	259	260
11. Pharmacy	45	54	21	13	21	113
Partials	...	...	...	...	...	...

Table VII—Distribution of Students According to Year of Birth, Sex and Status as Rehabilitation or Civilian

Rehabilitation				Civilian				Grand Total
Age	Male	Female	Total	Age	Male	Female	Total	
....	....	....	....	16	2	4	6	6
....	....	....	....	17	48	86	134	134
18	1	....	1	18	199	291	490	491
19	1	1	2	19	298	284	582	584
20	1	....	1	20	308	195	503	504
21	4	....	4	21	301	119	420	424
22	4	....	4	22	214	78	292	296
23	10	....	10	23	150	49	199	209
24	72	....	72	24	73	12	85	157
25	80	1	81	25	33	15	48	129
26	101	3	104	26	17	16	33	137
27	102	3	105	27	10	8	18	123
28	80	4	84	28	11	9	20	104
29	69	3	72	29	6	7	13	85
30	58	1	59	30	9	4	13	72
31	28	....	28	31	6	3	9	37
32	26	1	27	32	5	6	11	38
33	18	....	18	33	1	8	9	27
34	21	....	21	34	5	3	8	29
35	13	2	15	35	6	5	11	26
36	5	1	6	36	6	5	11	17
37	1	2	3	37	5	4	9	12
38	9	1	10	38	5	5	10	20
39	....	....	....	39	4	2	6	6
40	4	....	4	40	1	1	2	6
41	3	....	3	41	2	1	3	6
42	4	1	5	42	2	1	3	8
43	5	1	6	43	5	4	9	15
44	1	....	1	44	3	3	6	7
45	1	....	1	45	2	2	4	5
46	....	....	....	46	....	1	1	1
				47	....	....	....
				48	1	....	1	1
				49	1	....	1	1
				50	1	1	2	2
51	3	....	3	51	....	....	....	3
				52	1	1	2	2
53	....	....	....	53	....	....	....
54	1	....	1	54	1	....	1	2
				55	1	1	2	2
				56	....	....	....
				57	....	1	1	1
				58	....	1	1	1
	<hr/>	<hr/>	<hr/>		<hr/>	<hr/>	<hr/>	<hr/>
	726	25	751		1743	1236	2979	3730

**Table VIII—Distribution of Students According to Home Address
and Birthplace**

	Home Address	Birthplace	
A. British Empire—Commonwealth:			
(a) Canada			
Edmonton	1373	664	
Red Deer	43	31	
Vegreville	18	50	
Wetaskiwin	15	26	
Camrose	24	32	
Others (on or North of Twp. 38)..	795	1392	
Calgary	467	442	
Lethbridge	89	97	
Medicine Hat	35	57	
Cardston	18	36	
Others (South of Twp. 38).....	604	2	
Alberta	<hr/>	<hr/>	2829
	3481		
Newfoundland	1	2	
Nova Scotia	1	9	
Prince Edward Island	1	3	
New Brunswick .....	.....	6	
Quebec	2	15	
Ontario	13	59	
Manitoba	17	90	
Saskatchewan	128	383	
British Columbia	67	106	
Yukon and North West Territories	8	3	
Canada—not otherwise specified..	.....	5	
	<hr/>	<hr/>	3510
(b) Other Parts of the British Empire			
—Commonwealth:			
British Isles .....	.....	53	
Dominions	1	5	
Crown Colonies	1	4	
	<hr/>	<hr/>	62
	2		
B. Countries Outside the British Empire			
—Commonwealth:			
United States of America	2	41	
Poland and Czechoslovakia .....	.....	49	
Russia and Ukraine .....	.....	17	
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey)	.....	7	
Scandinavian States (Sweden, Nor- way, Denmark, Iceland) .....	.....	6	
Germany, Austria .....	.....	7	
France .....	.....	2	
Hungary .....	.....	3	
China and Japan	1	4	
Others	2	19	
Not specified	4	3	
	<hr/>	<hr/>	158
	9		
Totals.....	<hr/>	<hr/>	3730
	3730		3730

Table IX—Distribution of Students According to Pattern, Honors, or Branch

ARTS AND SCIENCE		1st Year		2nd Year		3rd Year		4th Year		Total	
		49-50	50-51	49-50	50-51	49-50	50-51	49-50	50-51	49-50	50-51
Pattern—B.A.:											
English	.....	10	17	11	11	16	11	....	....	37	39
Fine Arts	.....	7	6	4	2	7	3	....	....	18	11
Foreign Language or Lit.	.....	8	5	11	7	7	10	....	1	26	23
History	.....	4	2	4	11	7	4	....	....	15	17
Phil. or Psych.	.....	27	15	22	20	27	20	....	1	76	56
Political Economy	.....	1	3	15	5	7	15	....	....	23	23
No Pattern	.....	....	....	....	....	2	1	....	....	2	1
Pattern—B.Sc.:											
Chemistry	.....	11	11	9	13	43	11	....	....	63	35
Mathematics	.....	3	1	2	1	1	2	....	....	6	4
Physics	.....	2	5	8	6	5	8	....	....	15	19
Geology	.....	36	23	15	25	21	20	4	....	76	68
Botany	.....	....	1	1	....	....	....	....	....	1	1
Entomology	.....	1	2	....	3	2	....	....	....	3	5
Zoology	.....	14	8	11	17	26	25	....	....	51	50
Special Biological	.....	17	28	11	14	15	11	....	....	43	53
No Pattern	.....	....	....	....	....	8	1	....	....	8	1
Honors:											
Biochemistry	.....	3	3	1	2	8	1	1	....	5	6
Chemistry	.....	8	5	9	5	8	9	11	9	36	28
Classics	.....	1	1	....	2	1	....	1	1	3	4
Conservation Biology	.....	....	....	....	....	....	....	....	....	2	2
English	.....	1	2	1	....	3	1	3	2	8	5
Geology	.....	6	5	2	5	9	2	8	7	25	19
Mathematics	.....	1	2	2	....	4	2	6	4	13	8
Modern Languages	.....	6	3	4	7	6	1	4	4	20	15
Philosophy	.....	....	1	....	....	2	....	1	....	3	1
Psychology	.....	....	....	1	....	3	....	4	....	8	4
Physics	.....	4	3	5	3	4	3	7	2	20	11
Political Economy	.....	....	....	1	1	2	2	1	....	4	3
Business Administration	.....	....	....	....	....	1	....	....	2	1	2
ENGINEERING											
Civil	.....	15	23	49	49	47	40	88	47	199	159
Chemical	.....	*13	16	24	11	40	21	60	36	137	84
Electrical	.....	*13	24	26	10	47	17	78	44	164	95
Mining	.....	*2	8	6	8	18	8	33	16	59	42
Petroleum	.....	*39	25	25	19	29	26	16	26	109	96
Irrigation	.....	*	....	....	....	....	4	1	....	1	4
Engineering Physics	.....	*	1	....	....	2	2	10	2	12	5
Engineering Geology	.....	*	3	....	1	3	....	....	2	3	6
Not specified	.....	71	42	....	1	....	....	....	....	71	43

*Indicates intention only. All first year students in Engineering registered in general course.

Table X—Gifts

From the National Research Council, \$38,950.21 in accountable advances for research work under the direction of the following staff members: Dr. P. J. Bowland, \$500; Dr. R. K. Brown, \$1,050; Dr. D. R. Clandinin, \$400; Dr. H. B. Collier, \$2,709.89; Dr. W. G. Corns, \$1,080; Dr. S. G. Davis, \$400; Dr. G. W. Govier, \$909.03; Dr. E. H. Gowan, \$1,658.18; Dr. H. Grayson-Smith, \$250; Dean R. M. Hardy, \$1,000; Dr. W. E. Harris, \$1,075.58; Dr. A. W. Henry, \$2,462; Dr. R. J. Hilton, \$1,492.75; Dr. E. O. Hohn, \$193.95; Dr. B. Jelinek, \$1,040; Dr. B. Jelinek and A. E. Harper, \$1,275; Dr. L. P. V. Johnson, \$2,214.75; Dr. R. B. Miller, \$1,000; Dr. J. L. Morrison, \$2,500; Dr. A. G. McCalla, \$3,421.07; Dr. K. B. Newbound, \$175; Dr. J. D. Newton, \$2,283.61; Dr. R. B. Sandin \$150; Dr. D. B. Scott, \$2,036.24; Dr. J. S. Thompson, \$878.55; Dr. J. Tuba, \$1,874.39; Dr. O. J. Walker, \$1,150; F. W. Wood, \$54.22; Dr. J. Unrau, \$3,196.

From the National Cancer Institute of Canada, grants for research under the direction of the following: Dr. H. E. Rawlinson, \$1,472.45; Dr. H. V. Rice, \$2,773.99; Dr. R. B. Sandin, \$3,500; Dr. J. Tuba, \$4,641.24.

From Northwestern Utilities Limited, \$3,700 for the purchase of a Cutler-Hammer recording calorimeter for the Department of Chemical Engineering.

From the Barley Improvement Institute, \$3,500 for barley improvement work in the Department of Plant Science.

From the Consolidated Mining and Smelting Company of Canada Ltd., \$3,000 for a project in the Department of Soils on the effects of fertilizer on nutritive values of grey wooded zone soils.

From the Alberta Seed Growers' Co-operative Ltd., grants totalling \$1,500 for research in the Department of Plant Science; and \$1,000 for experimental work with fertilizers on grey wooded soils, under the direction of Dr. J. D. Newton.

From the Provincial Department of Health, \$2,200 for the "Eye Survey Experiment" under the direction of Dr. M. R. Marshall.

From the Division of Entomology, Dominion Department of Agriculture, a research grant of \$2,000 to Dr. J. H. Stirrat.

From Brunner, Mond Canada Sales, Limited, a grant not to exceed \$2,000 to cover a fellowship and special equipment for a research project under the direction of Dean R. M. Hardy, on the use of calcium chloride in stabilizing gravel base courses in highway construction.

From the Canadian Foundation for the Advancement of Pharmacy, \$750 for a teaching fellowship; and \$1,000 to support research in the School of Pharmacy during the summer months.

From the Robin Hood Flour Mills Ltd., a total of \$1,700 for research in the Department of Plant Science on the improvement of varieties of white spring wheat in southern Alberta.

From North American Cyanamid Ltd., \$1,200 for an investigation of straw decomposition and \$500 for research on defoliation of legumes in the Department of Plant Science.

From the Defence Research Board, an increase of \$200 in the grant to Professor B. Hocking, and a grant of \$1,500 to Professor F. W. Wood.

From the Dominion Department of Health and Welfare, through Dr. A. Somerville, Director of the Alberta Health Survey, a grant of \$1,500 for the short course in hospital administration.

From the United Grain Growers Limited, \$300 for continuation of research on turkey nutrition under the direction of Drs. Clandinin and Robblee; \$500 for research on the hatchability of eggs in the Department of Animal Science; and \$500 for research in the Department of Plant Science.

From the Chemagro Corporation, \$1,250 for a testing program on a seed disinfectant in the Department of Plant Science.

From the John and Mary R. Markle Foundation, an increase from \$5,000 to \$6,000 in the annual grant to the Faculty of Medicine.

From the Canadian Construction Association, contributions totalling \$1,000 to highway research in the Department of Civil Engineering, in co-operation with the research Council of Alberta.

From the Alberta Division, Canadian Cancer Society, \$750 for the Department of Pathology, to build up a collection of lantern slides.

From Purity Flour Mills Limited, \$500 for research on white spring wheat in the Department of Plant Science.

From Maple Leaf Milling Company Limited, a grant of \$500 in continued support of research on soft wheat in the Department of Plant Science.

From the Ellison Milling and Elevator Company Ltd., \$250 for research on soft wheat in the Department of Plant Science.

From Merck & Company Limited, a supply of vitamins and antibiotics, of the approximate value of \$200, for poultry research in the Department of Animal Science.

From the Canadian Shorthorn Association, a grant of \$150 for Shorthorn cattle research in the Department of Animal Science.

From the Alberta Linseed Oil Company, \$100 for testing work with safflower in the Department of Plant Science.

From the Soldier Settlement and Veterans' Land Act, through the District Superintendent, Mr. H. Allam, a grant of \$50 for research in the Faculty of Agriculture, in recognition of assistance given by University staff members to a recent short course.

From the University of Alberta Dental Alumni Association, \$100 for additional furnishings for the office of the Dean of Dentistry.

From the Edmonton Dental Society, a contribution of \$100 to the fund for furnishing the office of the Dean of Dentistry.

From Mr. A. R. Prince, Calgary, 1,000 collections of fungi for the Department of Botany.

From Mr. Claude Gallinger, Edmonton, three steers to be fitted by the Department of Animal Science for next year's Royal Winter Fair.

From Miss Helen Norton, Boston, through the Royal Ontario Museum of Archaeology, about a dozen pieces of antique Roman glass.

From the Weber Dental Manufacturing Company, an X-ray machine, on consignment, for use in the Faculty of Dentistry.

From Mrs. J. J. Anderson, a picture of her father, the Hon. Frank Oliver.

From the Class of 1951, a picture painted by Mr. J. B. Taylor, to hang in the Library.

From a group of friends of the late Dean G. M. Smith, a memorial fund of

approximately \$600 for the purchase of books in the field of international affairs to be added to Dean Smith's library, previously donated to the University.

From the College of Physicians and Surgeons, \$400 for books for the Medical Library.

From Mrs. E. W. Sheldon, the late Dr. Sheldon's mathematical books and papers, for the Library.

From Mr. E. E. Poole, two pieces of marble statuary for the Rutherford Library.

From the Edmonton Journal, bound files of the Edmonton Bulletin.

From the University Women's Club, a grant of \$25 to the Library.

From Judge T. L. Cross, 25 volumes of States Trials; from Mrs. T. H. Field, 71 volumes of medical books; from the estate of the late Mr. J. G. Millar, 45 volumes on mathematics and physics; from the Sussex Foundation, 26 cookbooks; from the British Council, 100 volumes of recent publications in the fields of science, medicine and the humanities; from Mr. Cecil Burgess, a set of Journals of the Royal Institute of British Architects.

From the French Embassy in Ottawa, 46 books for the library of the Oral French Section of the Banff School of Fine Arts.

From Dr. and Mrs. Robert Newton, 31 pictures, the balance of "The Emma Read Newton collection".

From the Friends of the University, a total of \$1,089: \$100 from the Army and Navy Department Store, \$100 from Mr. John Dower, and \$889 from 79 other donors.

To the building fund of the Banff School of Fine Arts, through the Banff Foundation: \$10,000 from the Canadian Pacific Railway Company, \$5,000 from Mr. F. R. Graham, Vancouver, \$1,000 from the United Grain Growers Limited, and \$750 from Massey-Harris Co., Toronto.

Table XI—New Scholarships, Prizes, and Medals

Available to University of Alberta students

By the will of Mr. J. M. Douglas, \$20,000 in bonds, to establish two annual scholarships of \$300 each, one for a man student in memory of the late James McCrie Douglas, and one for a woman student in memory of his wife, the late Mary Cameron Douglas.

From the Interprovincial Pipe Line Company, an annual fellowship of \$1,000 to a graduate student for work on fundamental research problems in connection with the operation of their pipe line.

From Canadian Industries Limited, a grant of \$250 for equipment and \$750 to establish the C.I.L. Gas Fellowship, to be awarded to a graduate in chemical engineering from any Canadian university.

From a group of Alberta dentists, contributions totalling \$650 to the Post-Graduate Scholarship Fund of the Faculty of Dentistry. New contributors include Dr. A. Steeves and Dr. E. R. Upton, \$50 each, and the Calgary Dental Society, \$200.

From the Hudson Bay Mining and Smelting Co., Limited, Winnipeg, a scholarship of \$500 to a student selected by the Company.

From Husky Oil & Refining, Ltd., a fellowship of \$500 for graduate study and research in problems related to some aspect of the "black oil" industry.

From the Kappa Sigma Fraternity, a scholarship of \$200 to a student of their selection.

From the Alberta Visual Arts Board, the Birks 1950 scholarship of \$100.

From the Edmonton and District Druggists' Association, a matriculation scholarship of \$100 for students from Northern Alberta entering the School of Pharmacy.

From Mr. Lovat Dickson, a book prize of £25 for award to a third year student in the Department of English.

From the Three Sisters Chapter, I.O.D.E., of Canmore, a scholarship of \$50 to a student of their choice.

From Miss Margaret B. Hutchison, \$150 to cover the award for three years of "The Alice S. Hutchison Memorial Scholarship" in Playwriting and Short Story at the Banff School of Fine Arts.

From the Strathcona High School Alumni Association, "The George W. Robertson Memorial Prize" of \$50 for a graduate of Strathcona High School enrolling at the University of Alberta.

From Mrs. Cyril G. Wates, an annual prize of \$50, to be known as "The Cyril G. Wates Memorial Prize", for award to an astronomy student.

From the Western Canadian Society of Horticulture, a prize of \$50 per year, to be rotated among the three prairie universities, for award in the senior year of the degree course in Horticulture.

From Dr. Olive M. Fisher, a prize of \$25 to a student at the Calgary Branch who has shown outstanding merit in practice teaching in the second year of the B.Ed. program, Elementary route.

From the American Academy of Dental Medicine, a certificate and a five-year subscription to the "Journal of Dental Medicine" for the student in the Faculty of Dentistry with the best record in non-dental courses.

From Dr. Esther Prevey and Miss Ruth Prevey, continuation of the Prevey medal, now to be known as "The Warren W. and Ida E. Prevey Memorial Gold Medal in Household Economics".

From the Alberta Teachers' Association, a gold medal for award to the student showing the highest general proficiency in the final year of the B.Ed. program, to replace the medal formerly given by the Faculty of Education Alumni Association.

From Alpha Omega Fraternity, New York, a scholarship award plaque to be presented annually to a graduating student in the Faculty of Dentistry.

Available to Western Board of Music students

From Mr. and Mrs. Otto E. Woblick, \$50 yearly for five years for prizes for students in the Lethbridge area.

From the Peace River Women's Institute, an award of \$25 for a Peace River candidate.

From the Glendon Board of Trade, a prize of \$5.00 for candidates residing in Glendon.

Table XII—Staff Publications

Department of Anatomy

Rawlinson, H. E. The relation between the mammary gland and aprocrine sweat gland. *Anat. Congr. Abstr.* 157-158. July 1950.

Rawlinson, H. E. The iron content of the mouse mammary gland as a measure of the factors affecting glandular development. 5th Congress International du Cancer, Paris. p. 75. July 1950.

Rawlinson, H. E. The use of an iron stain for the study of alveolar development in the mouse mammary gland. *Can. J. Res. E*, 28:1-4. 1950.

Rawlinson, H. E., and G. B. Pierce. Iron content as a quantitative measurement of the effect of previous pregnancies on the mammary glands of mice. *Endocrinol.* 46:426-433. 1950.

Rawlinson, H. E., et al. Oxygen uptake of rat mammary tissue slices. *Can. J. Res. E*, 28:217-221. 1950. (See also Department of Biochemistry.)

Shaner, R. F., and J. W. Adams. Corrected transposition in the heart of a ten months' infant. *Can. Med. Assoc. J.* 64:64-66. 1951.

Shaner, R. F. Complete and corrected transposition of the aorta and pulmonary artery and ventricles in pig embryos, and a case of corrected transposition in a child. *Am. J. Anat.* 88:36-62. 1951.

Department of Animal Science

Bowland, J. P., S. E. Beacom, and L. W. McElroy. Animal protein factor and antibiotic supplementation of small grain rations for swine. *J. Anim. Sci.* 10: 629-637. 1951.

Clandinin, D. R., Joan M. Stevens, A. B. Morrison, and A. R. Robblee. Effect of feeding lysine in the presence of glucose on its liberation by acid and enzymatic hydrolysis. *J. Biol. Chem.* 190:219-222. 1951.

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Robblee, A. R., A. B. Morrison, and D. R. Clandinin. Use of thiouracil and diethylstilbestrol for finishing turkeys. *Poul. Sci.* 30(5):772-774. 1951.

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Department of Bacteriology

Keeping, S. Histoplasma and Brazilian Blastomyces. *Mycologia*, 62:668. 1950.

Department of Biochemistry

Collier, H. B., and Helen L. Chen. On the antihemolytic value of the blood of rabbits as measured by lysolecithin. *Can. J. Res. E*, 28:289-297. 1950.

Tuba, J., and R. K. Shaw. The relationship of dietary factors to rat serum alkaline phosphatase. I. The effect of fat, methionine, and cystine. *Can. J. Res. E*, 28:41. 1950.

Tuba, J., and R. Hoare. On rat serum lipase. I. A simple micromethod for estimation of lipase activity in rat serum. *Can. J. Res. E*, 28:106. 1950.

Tuba, J., H. E. Rawlinson, and Lorna G. Shaw. Oxygen uptake of rat mammary tissue slices. *Can. J. Res. E*, 28:217. 1950.

Department of Botany

Cormack, R. G. H. ~~A~~ study of leaf thickness in wheat. *Agron. J.* 42:361. 1950.

Moss, E. H. Rusts on Adiza in Alberta. *Mycologia.* 43:99-102. 1951.

Department of Chemistry

Brown, R. R., S. Kirkwood, L. Marion, S. Naldrett, R. K. Brown, and R. B. Sandin. The exchange reaction between sulphur and di-benzothiophene-5-dioxide. *J. Am. Chem. Soc.* 73:465. 1951.

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Department of Civil and Municipal Engineering

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Department of Dairying

Erdman, I. E., and H. R. Thornton. Psychrophilic bacteria in Edmonton milk and cream. I. Numbers. II. Kinds. *Can. J. Tech.* 29(5):232-242. 1951.

Thornton, H. R. The inadequacy of the Canadian dairy research program. *Agr. Inst. Can. Rev.* March 1951.

Faculty of Dentistry

Hamilton, W. Scott. Some opinions relating to oral surgery. *J. Can. Dent. Assoc.* October 1950.

Department of English

Godfrey, D. R. The essence of Aldous Huxley. *English Stud. Amsterdam.* June 1951.

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Department of Entomology

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Department of Geology

Rutherford, R. L. Structural interpretation of loci of petroliferous parts of Devonian reefs in Edmonton area, Alberta, Canada. *Bull. Am. Assoc. Petrol. Geol.* 35(4):844-853. 1951.

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Department of History

Long, M. H. Charles Alexander Magrath, 1860-1949. *Trans. Roy. Soc. Can. Sec. III,* 44:91-96. 1950.

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Faculty of Law

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Department of Medicine and Clinical Medicine

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Department of Mining and Metallurgy

Clark, K. A. The hot water washing method for the recovery of oil from the Alberta Tar Sands. *Can. Oil and Gas. Ind.* 3(6):46. 1950.

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Department of Obstetrics and Gynecology

Vant, J. R. Postpartum blood loss: An analysis of 6,000 cases. *Am. J. Obstet. Gynae.* 60:483-488. 1950.

Department of Ophthalmology and Rhino-Oto-Laryngology

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School of Pharmacy

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Department of Physics

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Department of Physiology and Pharmacology

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Department of Plant Science

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Report of Dean John Macdonald of the Faculty of Arts and Science

Recommendations for Degrees

The number of students recommended for degrees at the Convocation of May, 1951, is as follows:

For the B.A. degree	90
For the B.Sc. degree	126

Progress During the Session

There are no special developments to report for this Faculty during the past season. The Faculty set up a committee to look into the question of possible divisioning of it. The committees recommendation in regard to this as an immediate step was negative and it was accepted by the Council. Arising out of the work of that committee, it was decided to set up another committee to examine the pattern system in the light of five years' experience of its operation. It is felt that a considerable number of minor adjustments may be needed. The committee would report at the beginning of the next session.

During the 1948-50 session, the Faculty Council made certain recommendations in regard to matriculation changes. These recommendations, along with those of other faculties, were considered by the General Faculty Council. The result was a revision of matriculation as a whole which I have every reason to expect will prove satisfactory to the Faculty of Arts and Science.

Departmental Reports

I wish to append reports concerning the individual departments as follows:

Botany—Dr. Moss reports that the aerobiological survey which is supported by a Federal Public Health Research Grant has been extended to give a wide coverage of central and southern Alberta. Ecological investigations in Northern Alberta under the sponsorship of the Dominion Department of Agriculture have been continued during the session.

Chemistry—Dr. Walker reports that there has been a decrease in the number of students registered in this department. He regrets in particular a decrease in the registrations for the Honors course. He states that they can place many more Honors graduates than are actually taking the course.

During the summer of 1950, Dr. R. K. Brown was carrying out research at the National Research Council in Otaawa and Dr. W. E. Harris was engaged in research on rubber at the Polymer Corporation in Sarnia. Most of the research programs mentioned in last year's report are still being carried on. Dr. Walker expresses concern over the possibility that, under the new arrangement for Cancer Research, the funds allotted to Dr. Sandin and Dr. Brown for this purpose will be withdrawn. He feels that there is a situation here which needs consideration.

Classics—Dr. Hardy gave five lectures to the Ontario Educational Association in Toronto in April, 1950. One of these lectures has since been published in the Report of the Convention. An article on Greece has also been published in the Ahepa Magazine. Dr. Johns and Dr. Hardy have given a number of lectures to groups and clubs in the city of Edmonton and elsewhere in the province.

The department has purchased five Greek vases, all originals. These, as well as the department's collection of electrotypes of Greek and Roman coins will be on view in the Rutherford Library. The Department has also received a gift of eleven pieces of Roman glass. These pieces date from the Hellenistic period, 2nd century, B.C., through the 1st to the 4th centuries A.D. They are a gift from the Norton Collection in Boston.

English—Professor Jones (for Professor Salter) reports that there has been an increase in the number of students taking English 2. It now stands at about 570. Following on Dr. Gordon's resignation, Professor Salter has been appointed Head of the Department. He has been on sabbatical leave for the session. His special studies led him to the British Museum, the Bodleian Library and the Cambridge University Library and the Public Record Office, London.

Fine Arts

Art—Professor Glyde reports that this division was very successful with respect to exhibitions and extension work this past year. The extension work was so heavy that it was necessary to carry four part-time instructors. There was an approximate enrolment of 225 in the Edmonton extension courses and 275 in the community field.

Professor Glyde also states that in the country there were twelve centers operating courses. There was a series of ten lectures on Art History and Appreciation given by members of the Art staff from January to April. Professor Glyde was officially installed as a Royal Academician last autumn. Mr. J. B. Taylor, Mr. M. W. MacDonald and Janet Middleton were elected to the Alberta Society of Artists.

A canvas of Professor Glyde's was presented by the Royal Canadian Academy to the National Gallery of Canada. Janet Middleton was honored by having work reproduced and included in the Travelling Exhibition. Work by Gwytha Evans and J. B. Taylor was also represented here. Members of the Division co-operated in producing designs and costumes for the Studio Theatre plays. Certain exhibits have come to the University through its membership in the Western Canada Art Circuit. Professor Glyde has the details of this. During the period when the Western Canada Art exhibits were not available, some half-dozen exhibitions were arranged by the Department itself.

Music—Mr. Eaton reports a total of 69 students registered in Music courses this session. A concert by the choral laboratory and the University symphony orchestra was presented. Extension courses were given in Music Appreciation and in Choral Leadership. These were conducted respectively by Mr. Crighton and Mr. Eaton.

Drama—The setting up of a Studio Theatre with a full-time production manager and business manager led to an extension of the work of the Drama Division. Five productions were undertaken, each of which played for nine regular performances. The final production, *Macbeth*, gave two performances in Red Deer. The Studio Theatre in this way contributed greatly to the vitality of the Drama Division. The Painting Division and the Music Division collaborated each in its own way in the production of the plays. Mr. Orchard remarks that the Studio Theatre has already attracted attention in theatrical circles in Canada.

Geology—Dr. Warren reports that there is a large registration in Geology courses owing to the oil developments in the province. He remarks, however, that the ordinary three-year graduates are now meeting strong competition for employment from outside men whose Geology training has reached a more advanced level. The result is that there is definite pressure on the department on the part of our own students to be accepted for master's work. As a matter of policy, the department considers it important to give preference to our own graduates.

The department has made the usual contribution as a service department to other faculties, particularly Engineering.

History—Professor Long reports that Mr. Thomas and Mr. Blackley have both been working on their doctoral theses during the session. Mr. Thomas's dissertation on the History of Alberta from 1905 to 1921 is to be published as a volume in the so-called Social Credit Series of Studies which is sponsored by the Canadian Social Science Research Council. Professor Long himself has been working on a prospective book, and a revised edition of Dr. Collins's History of Mediaeval Civilization in Europe will soon be published by Ginn and Company.

Mathematics—Professor Campbell reports that Professor A. J. Cook has withdrawn from the Department to accept a full-time appointment as Director of Student Advisory Services. Dr. D. R. Crosby, who had a distinguished record as a student in Mathematics and an ex-Rhodes scholar has been appointed to the staff. A very real loss was suffered by the death of Professor J. G. Millar of the staff of the Calgary Branch. Mr. Millar had already begun to make a very real contribution to the academic and social life of the University. Dr. Max Wyman has been elected a Fellow of the Royal Society of Canada. The Department of Mathematics records its great regret over the death of Professor Emeritus E. W. Sheldon; the death which occurred on June 14, 1950, was quite unexpected.

Modern Languages—Professor Owen reports that Messrs. Healy, Greene and Faucher have been collaborating on a series of texts for instructional purposes dealing with the literature and art of the 19th century. Dr. Greene is doing the same for the 18th century period. Professor Owen is still occupied with his collection of material for a history of Germanic culture. Professor Healy is on sabbatical leave and working in Paris. Mr. Pierre Gobin, who has been departmental assistant in French for one year by arrangement with the French Ministry of Education, has given valuable service. The arrangement, which was possible this session for the first time, has been very satisfactory.

Philosophy and Psychology—One of side of Philosophy, there is nothing special to report. The undergraduate classes in philosophy are well attended and certain students have been carrying on work at the graduate level.

On the Psychology side, Dr. Smith has become a member of the Associate Committee on Applied Psychology of the National Research Council. During last summer, he was again Chairman of the Membership Committee of the Canadian Psychological Association. In February, he lectured to personnel officers of the R.C.M.P. Last year, he became a member of the Executive Council of the Edmonton Council of Community Services. Dr. Spearman is planning a tour during the summer in connection with further work in his own special field. This tour will take him to Montreal, New York and possibly Washington.

Physics—Professor Grayson-Smith reports that the members of his staff are continuing with their various research programs. Dr. D. B. Scott is conducting research in nuclear physics. Dr. R. J. Lang has been conducting his researches in spectroscopy. Dr. K. B. Newbound has also been operating in this field. The long-term program of solar radiation studies under Dr. Gowan has continued throughout the year. Measurement of the dielectric constants at low temperature of certain iron-group salts, under the direction of Dr. Grayson-Smith, has been completed. Opportunities for Honors B.Sc. and M.Sc. graduates in Physics continue to be good. All 1950 graduates have obtained either satisfactory positions or else assistance to continue advanced studies at other institutions.

Political Economy—Professor Mayo reports that the Department lost its administrative head through the appointment of Professor Stewart to the Presidency of the University. The Dairy Farm cost study continues. Mr. V. Gilchrist has continued with his research on the P.F.R.A. Research has also been continued in municipal government with funds from the Rockefeller Foundation. Two reports have been issued from this research, first by D. Smiley—assessing the County Act of Alberta, and second by L. Calhoun—assessing Uniform City Charters. Copies of both these reports were forwarded to the Department of Municipal Affairs.

The members of the Department are involved in a research project which is directed towards an evaluation of the legislative program of the Social Credit Government since 1935. Professor Mayo acted as Chairman of a Board of Arbitration between the Smoky Lake School Division and the Alberta Teachers' Association. He also gave a number of radio talks on the *Behind the Headlines* series. Mr. Wise also gave two radio talks. Dr. Mayo and Mr. Hanson each gave four lectures in the Department of Extension course—Canadian Economic Problems. Mr. Wise also gave one lecture in this series.

Zoology—In this department, it is reported that certain courses in Art were contributed to the Department of Fine Arts program by Dr. Rowan and Dr. Clare. The registration of the department as a whole continues fairly high and there are

eight students registered for the M.Sc. degree. Dr. Rowan and Dr. Moore continue to conduct their Annual Cycle Questionnaire on the abundance of various mammals and upland game. Dr. Rowan is continuing his research on the rabbit cycle.

In co-operation with the Department of Lands and Forests, the Zoology Dept. has established a biological station on the Sheep River. The station operates during the summer months. This summer, research in big game will be started. So far the research has been on the survival of hatchery-reared trout in streams. Dr. Miller continues as chairman of the Dominion committee which co-ordinates research on whitefish infestation across Canada. The Department is now represented on the National Research Council's Associate Committee on Fresh Water Biology, which apportions funds for research in this field.

Report of Professor Andrew Stewart, Director of the School of Commerce

The work of the School of Commerce was strengthened by the appointment of Mr. D. Goodale in the Department of Accounting, as Assistant Professor of Accounting, and Mr. W. D. Gainer in the Department of Political Economy, as Assistant Professor of Business Administration. These appointments resulted in the replacement of part-time instructors and made it possible to introduce for the first time the fourth year of the Honours in Business Administration program.

Two students registered in the Honours in Business Administration program and completed requirements for the degree. There were 34 students in the third year of the Bachelor of Commerce program, and of these 27 completed requirements for the degree. In the 1949-50 report, reference was made to the decline in registrations in the first year. The second year class in 1950-51 numbered 25. There was, however, a substantial increase in registrations in the first year to 47.

Employment opportunities for graduates in Commerce remained good. Through the regular placement channels and with the assistance of the Employment Committee of the Commerce Club, all graduands were placed early in suitable employment. Sixteen of the graduates of 1950-51 are proceeding to article toward professional accountancy.

Close liaison has been maintained with the Institute of Chartered Accountants, through the Board of Review, and also with the Dominion Association, through articles contributed to the magazine and work by Professor J. D. Campbell on examinations. Arrangements have been completed with the Registered Industrial Accountants for certain exemptions to graduates proceeding to examinations of that body.

The Department of Accounting has continued its research work in the field of financial statement analyses, using the published statements of Canadian corporations.

The program of evening lecture courses for the Alberta Society of Registered Cost Accountants was successfully continued. The School of Commerce has discussed the possibility of evening classes for credit toward the B.Com. degree, and this matter is now under consideration by a committee of General Faculty Council. During the year the Department of Extension sponsored a Short Course for Purchasing Agents, and lectures in Business Administration were given by the Department of Accounting.

Report of Professor Mabel Patrick, Director of the School of Household Economics

This year there is a twenty-four per cent increase in the number of students registered in first year, 31 as compared with 25 in 1949-50.

In addition, 82 students from the School of Nursing and 37 from the Faculty of Education are registered in the Department of Household Economics.

Four graduates have been studying at other Universities during the year. Three have received Master's degrees.

The demand for graduates, especially in the fields of Education and Institutional Management, exceeds the supply. This year only a few of the large number of requests for dietitians have been filled. Many of these requests were from other provinces.

Of the senior class, twelve students have accepted student training appointments. This is a decrease of forty per cent from two years ago.

Three students plan to enter the Faculty of Education next session, one plans to continue her studies, two have accepted positions, two are to be in their own homes and three are undecided.

Report of Dean A. G. McCalla of the Faculty of Agriculture

This year's report from the Faculty of Agriculture must begin by recording the sense of loss to the Faculty and to agriculture throughout Canada resulting from the untimely death of the late Dean R. D. Sinclair. Dr. Sinclair grew up with the Faculty, having been a member of the first class in Agriculture and, with one brief break, having been associated with the Faculty since he entered the University as a freshman. He guided staff and students through years of heavy post-war registration and carried exceedingly heavy duties both within and without the University. His enthusiasm will be felt for many years to come, because he had an important influence on all Agriculture graduates over a period of more than twenty-five years.

It has been customary in reports of recent years to classify the activities of the Faculty of Agriculture as (1) academic, and (2) experimental. Most of the departments in the Faculty, however, include in their own reports a third distinct type of activity, that of extension. Such activity has been referred to in earlier reports and this year is covered in a separate section.

Academic

During the year just closing, registration in the Faculty of Agriculture totalled one hundred and sixty-five, exactly one hundred less than in 1949-50. This decrease reflects the graduation last spring of our largest class, and the admission, in September 1950 of a freshman class of only thirty. Only one of these thirty students is a veteran, and the group in general is younger than most of our recent freshman classes. Nine of the thirty entered the Faculty with the diploma from a Provincial School of Agriculture.

Seventy-two students were registered in the final year, forty of them veterans. This is the last group of veterans and the last large graduating class in prospect. It is, however, far below last year's class, which included one hundred and twenty-six students. One hundred and twenty-two of them received their B.Sc. degrees in May or October, 1950.

The extensive research program in the Faculty makes it possible and desirable to have a number of graduate students working toward advanced degrees. During the past year forty students were registered with the School of Graduate Studies. Seventeen of these are candidates for the M.Sc. degree this spring. The demand for our better graduate students has been good, and those students planning on going on to further post-graduate work have been very successful in securing scholarships.

The records show that increasing numbers of our graduates are appointed to senior and responsible positions in Canada, the United States, and elsewhere.

The first year students were registered for the first time in the modified program. The principal changes involved the consolidation of Animal Husbandry 1, Poultry Husbandry 1, and Veterinary Science 1 into a more general introductory course, Animal Science 1; and the elimination of Field Crops 1 and Horticulture 1 and the introduction of a general survey course, Plant Science 1. The changes make it possible to give these students more time on the basic sciences and on English, a new course, English 5, being compulsory for all students either in the first or second year.

The relations between students and staff have been very good during the past year. The Student-Faculty Relations Committee, in its fourth year, reported that students made no submissions that required action.

Experimental

Research programs in several departments have for many years taken a considerable part of the time of staff members. The past year has seen a continuation of these programs with expansion in some fields. The research projects serve general purposes, the total value of which cannot be at all accurately estimated. Some of the projects are designed to secure answers to specific questions or problems. Some, on the other hand, represent continuing investigations that serve to build up a wealth of information on problems that can be solved only when long-term records are available. A third and important field of research is in basic scientific investigations, the results of which serve to extend our knowledge and understanding rather than to solve particular problems. This last type of research is particularly well adapted to the training of graduate students and, therefore, has a major place in our work.

The Department of Animal Science has continued research mainly in the field of nutrition. A number of studies with growing and fattening pigs showed that pantothenic acid and thiouracil appear to have little value; while animal protein factor supplements containing antibiotics resulted in faster gains, in some cases at the expense of carcass quality. Data were obtained on the vitamin A and vitamin C content of sows' milk and of the blood of growing pigs.

Co-operative experiments were carried out on rations for pregnant ewes and on supplementary feeder-lamb rations with combinations of linseed oil meal, cobalt, and urea. The feeding value of frozen wheat for steers was investigated.

Several major projects with poultry also stress the use of various supplements in feeding rations. The effects of estrogens for finishing poultry; of vitamin B₁₂ and antibiotics on the production and hatchability of eggs and on chick quality; and of methods of processing on the nutritive value of sunflower meal have been investigated during the past year. Work on rations for broilers and turkey poults has found practical application by broiler and turkey producers in the province.

Research in the Department of Dairying included completion of studies of the psychrophilic bacteria and lactic acid streptococci in Edmonton milks and creams; and studies on high-temperature short-time pasteurization, colour of butter, and development of a Swiss-type cheese suitable for commercial production.

The Department of Entomology has investigated two species of cutworms; blackfly control; insect flight range studies using a wind tunnel; and plastic comb foundation for honey-bees. Practical employment of these plastic combs should be possible with materials now assembled.

Assistant Professor Hocking has continued his co-operation with the Defence Research Board. He spent parts of last summer in the Arctic and visited entomological establishments in England and Denmark. He was elected to Fellowship in the Royal Entomological Society of London in March of this year.

The outstanding event in the Department of Plant Science was the opening of the new Field Laboratory last summer. This building is a most useful and welcome addition to our facilities.

Research and investigational work in the Department of Plant Science covers many fields. An antibiotic has been successfully used to control covered smut of oats without causing significant injury to the seed. It was not so successful with barley and wheat, and two other antibiotics were not successfully used. Barley seed treated with hot water for controlling loose smut was benefited greatly by subsequent treatment with a mercury dust. Extensive tests on the effects of seed treatment of vegetable seeds were carried out. The barley disease survey was continued.

Work in horticulture included studies on bitter potatoes, and a number of investigations with vegetables, fruits, and ornamentals. The co-operative fruit-breeding project was extended considerably, although the growing season was poor.

Important progress was made in the field of cytogenetics. Excellent fundamental studies are under way and this work is attracting nation-wide attention. Three papers are in preparation for publication. Crosses involving Thatcher (hard wheat) and Lemhi (soft wheat) with two wheat-grass derivatives are aimed at producing strains of wheat resistant to the race of stem-rust that did extensive damage in parts of Western Canada in 1950.

Studies with the use of chemicals in weed control and legume defoliation were continued. The effect of 2,4-D and other hormones has been extended. Basic physiologic effects of these chemicals have been studied and results published.

Much of the plant breeding material in advanced stages was lost in a hail storm on July 28. Reserve seed will permit repetition of the tests in 1951. Material in earlier stages was not affected. Major emphasis was again put on barley, soft wheat, and oil-seed crops.

Research in Soils includes work on fertilizers and rotations, studies in water erosion, microbiological studies, and soil surveys. The experiments with radioactive sulphur have yielded valuable information on the use of applied and native sulphur by legume and grain crops. Fertilizer experiments continued to show the need for phosphates on the black soils.

The experimental plots for studying water erosion established at St. Albert in 1949 were continued in 1950. These plots, equipped to measure the amounts of run-off water and washed soil, are the only ones of their kind in Western Canada and have provided the first experimental data on local erosion losses.

Microbiological studies have shown that legumes, especially alfalfa, in many farmers' fields are poorly nodulated. Superior cultures for use in inoculation can be prepared for distribution to farmers.

Co-operative soil surveys have been continued. Particular interest centers on the work being carried out in the areas to be brought under irrigation by the St. Mary's and Red Deer River projects.

Research in most departments was partially supported by generous assistance from many sources. Large grants were made by the National Research Council, and by many commercial and industrial concerns. Materials such as chemicals were supplied by various companies. All such assistance is gratefully acknowledged.

Extension and Public Relations

Members of the Faculty of Agriculture devote considerable time to extension activities through radio addresses, meetings, correspondence, publications, and personal interviews. It is through these activities that we keep in touch with the farm public and with many groups associated in a number of ways with agricultural production and marketing. Some of these extension activities are quite distinct from those under the supervision of the Department of Education, but we have excellent relations with that Department.

Members of the Faculty took part in short courses, including those at Calgary, Edmonton, Lethbridge, Athabasca, and Lacombe; judged at several Seed Fairs; took part in farm-planning meetings in co-operation with the Provincial Department of Agriculture; assisted at or conducted refresher courses in specialized fields or for special groups. Several bulletins were prepared for distribution to farmers, and regular annual issues of the Press Bulletin were prepared by each of the Departments of Animal Science and Plant Science. Ten thousand copies of the latter are now distributed annually.

The twenty-ninth annual Feeders' Day at the University Livestock Farm drew approximately seven hundred visitors. The first Poultry Field Day met with an enthusiastic reception by some two hundred representatives of the poultry industry. The Soils Field Day at Breton was attended by over three hundred people. The ninth annual Visitors' Day in the Department of Plant Science was attended by two hundred and fifty people and featured the opening of the new Field Laboratory.

Many hours of time were devoted to answering letters and to personal interviews. These features of our extension work are increasing in volume and importance and give us some of our best personal contacts.

The Agricultural students made a substantial contribution to good public relations by again holding a Visitors' Day. While most of the nearly two thousand guests were students from high schools and Schools of Agriculture, representatives of business and industry also attended. The venture was a success in every way despite somewhat adverse weather.

The report is, of necessity, a very sketchy review of the activities of the Faculty of Agriculture during the past year. It is respectfully submitted on behalf of all members of our Faculty.

Report of Dean W. Scott Hamilton of the Faculty of Dentistry

During the past year two men have been engaged in graduate study in American universities, on Kellogg Fellowships. Dr. McMurchy is at Columbia

University in New York City, and Dr. S. R. Van Alstine is at Michigan in Ann Arbor.

Various members of our faculty have appeared as lecturers and clinicians before professional groups in Western Canada.

In September the faculty conducted a refresher course which was well attended. Dr. L. S. Fosdick, Department of Biochemistry, Northwestern University, was our guest lecturer.

Dr. H. R. MacLean is a member of the sub-committee of the National Research Council.

Dr. J. D. McLean is chairman of the Committee on Ethics, Canadian Dental Association.

Dr. W. Scott Hamilton is chairman of the Council of Dental Education, Canadian Dental Association.

Two Displaced Persons from Europe were among our student body. Five others were examined and some of them will be registered during the 1951-52 session.

Report of Dean H. E. Smith of the Faculty of Education

Of first rate importance for the efficiency of, and harmony within, this Faculty was its organization in September 1950, in three Divisions, Secondary Education, Elementary Education and Educational Psychology. The chairmen named were Professor Coutts, Professor McDougall, and Professor Dunlop. This divisioning has had various salutary effects, but most particularly in the wider sharing of responsibility, in the increased opportunity for group collaboration, and in improved possibilities of promotion. Two of the Divisional chairmen have submitted separate reports which are included herewith. The Division of Elementary Education has had an equally successful year and is thoroughly well organized for its work.

A good number of our staff have made progress in the improvement of their academic qualifications: Mr. Coutts received a Ph.D. degree from Minnesota, as noted elsewhere in this report. Mr. Dunlop is taking his final orals for the Ph.D. degree from Columbia on May 7th. Mr. MacGregor has his work completed and has been asked to stand by for a call to the University of Oregon in mid-May to defend this thesis. Mr. Doucette and Mr. Finn of the Calgary Branch received the Ed.D. degree from Stanford University at its spring convocation in 1950. Miss Caldwell received the B.Ed. degree, Alberta, at our October convocation. Several others are continuing with their work this summer.

Work in research and publication is likely to bear fruit next year. A number of research projects have been completed and are ready for formulation. It will be our policy to relieve as far as possible from routine duties men who are working on specific problems. From the reports attached it will be seen that considerable of our time and effort goes into collaboration with various committees of the Department of Education.

In addition to the activities noted elsewhere the following may be of interest:

Dr. McDougall has been working on a textbook, intended for Grade VII, VIII, and IX use, to be entitled, I think, A History of the British Commonwealth. This project is being watched with interest from various parts of the Commonwealth.

A semi-popular article by Dean Smith, called Can Schools Improve Society, was released for publication by the Rural Editorial Service (A Kellogg Foundation

organization) in September 1950. It has appeared in some fifteen State and Provincial Teacher magazines to date.

A radio talk given by Dean Smith on the Faculty of Education Series was published by the A.S.T.A., and was copied by a number of Trustee magazines in Canada.

Canadian Education Week, for Northern Alberta, was organized by Dean Smith by request of the Alberta Education Council. Professor Dunlop co-operated wholeheartedly.

The number of M.Ed. candidates on our roster continues to increase. Although the number of intramural candidates has, with the passing of D.V.A. personnel, been reduced almost to zero, a good bit of work is entailed in supervising the activities of candidates proceeding with their programs either extramurally or by summer session. The School of Graduate Studies has agreed that the requiring of a B.Ed degree for entry to M.Ed. candidacy was unnecessarily restrictive and has approved of its discontinuance, provided suitable alternative safeguards are substituted. The brochure, Abstracts of Theses in Education 1929-1949, completed by Dean Smith for publication a year ago, has proven very useful.

The services of the Education clinic, under the direction of Professor Dunlop, are developing satisfactorily. A detailed report of this year's work will be forwarded in due course.

The Faculty staff duties continue to be varied and heavy. The teaching loads are substantial, and to these are added the duties associated with practice teaching and with extension services to teacher organizations and Home and School Associations.

The Faculty appreciates the interest of the Department of Education and of the Department of Public Works in the maintenance and improvement of the plant and grounds. Electric service and lighting have been, and are being, greatly improved. The approaches are now in concrete and the playgrounds have been levelled. The caretaking service has been excellent and the staff thoroughly co-operative.

Report of the Division of Secondary Education

The chief contribution of the Division of Secondary Education to teacher training in 1950-51 has been the inauguration of an improved plan of student teaching concentrated in the second year of the Bachelor of Education program. Through co-operation with the University's timetabling committee and the faculties concerned, it has been possible to schedule student teaching every afternoon of the week for a full half year. This provided the advantage of continuity of experience and concentration of effort. During the half year in which the student teaching was done, the trainee spent three weeks in each of Grades IV-VI, Grades VII-IX and Grades X-XII. By this plan, each participating student teacher was given ninety hours of classroom experience. In this transitional year, one hundred and twelve students received the benefit of this plan. In addition, there were one hundred thirty-three trainees of the third and fourth years who completed student teaching according to the program in operation in past years. The total student-teaching group of two hundred forty-five trainees was under the direct supervision of Dr. H. S. Baker and Dr. H. T. Coutts. Guidance was given to smaller groups of these trainees through the committee of consultants consisting of Dr. H. S. Baker, Mr. B. Y. Card, Dr. S. C. Clarke, Dr. H. T. Coutts, Mr. G. M. Dunlop,

Dr. J. W. Gilles, Mr. H. C. Melsness, Dr. H. E. Smith, Mr. H. T. Sparby, and Mr. B. E. Walker. The staff of demonstration teachers directed the actual classroom experiences of the student teachers and made weekly evaluations, which were reported to the Division of Secondary Education.

Between the Division of Secondary Education and the Department of Education there is a close liaison. All members of the Division of Secondary Education have made contributions to the curriculum and examination branches of the Department of Education during the past year. They have taken an active part in policy making, curriculum construction, and examination construction.

Mr. H. T. Sparby and Mr. B. E. Walker are both working on research projects related to the field of secondary education in Canada.

The following are other contributions made to education in the Province of Alberta in 1950-51 by members of the Division of Secondary Education:

(1) A bulletin, *Aids to French*, King's Printer, Department of Education, Edmonton, was published in 1950 without recognition of its editor and author. This was the work of Mr. B. E. Walker.

(2) Dr. H. S. Baker and Mr. H. C. Melsness contributed articles to the Education Week brochure, *Education is Everybody's Business*.

(3) Dr. H. E. Smith, Dr. H. S. Baker, Mr. G. M. Dunlop, and Dr. H. T. Coutts prepared a *Brochure for M.Ed. Students* to guide those students doing graduate work.

(4) Dr. Coutts gave a series of four lectures on religious education in schools to the United Church ministers at their annual school of religion.

On December 21, 1950, the degree of Doctor of Philosophy was conferred on Mr. H. T. Coutts by the University of Minnesota. The title of his thesis was: *The Relation Between the Reading Competence of Alberta Ninth-Grade Pupils in Four Content Fields and Their Achievement in Those Fields*.

Report of the Division of Education Psychology

Introduction—The Division of Educational Psychology came into existence during the summer of 1950. Included in its scope are all the psychological courses offered by the Faculty of Education. These cover the fields of child psychology, psychology of adolescence, educational psychology, guidance, mental hygiene, psychology of the subject matter fields, psychology of exceptional children, clinical psychology, and tests and measurements. The Division includes in its responsibilities supervision of all courses in this field offered in the Calgary Branch of the University of Alberta as well as those offered in Edmonton.

Selection of Texts—The first official meeting of the Division of Educational Psychology concerned itself with the selection of suitable texts in Education 172 and Education 176, covering the fields of child and educational psychology for first-year students. Seven instructors, five in Edmonton and two in Calgary, offer these courses. The Division was able to select texts which were satisfactory to all of the instructors concerned.

Course Outlines—In the multiple instructor courses of Education 172 and Education 176 it was decided that uniformity in courses would be promoted by the preparation of course outlines. As a consequence of a meeting of instructors, an "Approach to Education 172 and Education 176" was prepared in which the major areas and points of emphasis of the courses were stated. On the basis of this a

course outline for the two courses was prepared, including student bibliography and suggested term work. Course outlines were also prepared in all courses offered during the winter session of 1950-51 and circulated to all members of the instructional staff of the faculty.

Evaluation in Multiple Instructor Courses—At the fall meeting of the Division the evaluative procedure in Education 172, Education 176, was outlined. As a result of this preliminary planning co-operatively prepared examinations for Christmas and April were planned. The procedures agreed upon worked satisfactorily at Christmas and should function efficiently for the final.

It was decided to adopt consolidated marking for the final examinations. As a result the two Calgary instructors will work with the five Edmonton instructors in evaluating the examination papers in Edmonton in April.

Education Clinic—Dean Smith assigned responsibility for the Education Clinic to the Division of Educational Psychology. The Chairman of the Division acted as director. He was assisted by the members of the Division in the Edmonton Branch of the faculty, who called on experts in other Divisions where their services seemed necessary. The most active workers in the Clinic were Dr. Rees, Dr. Clarke, and the director. A complete report on the work of the Education Clinic is forthcoming. It was felt that the Education Clinic rendered a useful service which could not otherwise have been available.

Science Exhibit—When planning for the Science Exhibit occurred, the Division of Educational Psychology decided to prepare a public demonstration entitled, "Speeding Your Child's Reading". This was offered on the two days of the Science Exhibit by two separate teams chosen from the staff of the Division. The demonstration seemed to receive a fair measure of public approval and was singled out by a commentator of the C.B.C. Edmonton Station, CBX, as the subject of a special fifteen minute broadcast.

Extension Series: "Teen-Agers and Their Problems"—At the request of the Department of Extension, the Division of Educational Psychology offered a course of ten extension lectures to parents on the subject of "Teen-Agers and Their Problems". In this series of lectures the following staff members participated: Dr. R. E. Rees, Miss M. S. Simpson, Dr. S. C. Clarke, Dr. J. W. Gilles, Mr. B. Y. Card, and Mr. G. M. Dunlop. This series seemed to meet with popular approval, in part due to the fact that at least half of each lecture period was devoted to discussion.

Research—In the field of research the members of the Division were active but did not direct their attention to the production of articles or publications. It must be pointed out, however, that many of them have either individually or collectively completed studies which are suitable for publication in psychological periodicals and journals. Leadership is being given in the direction of encouraging staff members to complete and publish the results of their studies. It is anticipated that there will be a great improvement in this area in 1952.

Report of Dr. A. L. Doucette, Director of the Calgary Branch

Registration

The total enrolment at the Calgary Branch rose to 268, an increase of five per cent over that of the 1949-50 session. This figure includes thirty-seven partial students, mainly teachers from Calgary city schools who take advantage of late

afternoon classes offered to regular students. Of the total enrolment this year, one hundred and sixty students registered in the special one-year programme; the academic quality of this group as represented by the number of matriculation subjects to their credit was the highest since the birth of the Faculty of Education in 1945. The enrolment by sex distribution was eighty-seven men and one hundred and eighty-one women.

Staff

One additional staff member was added to the Education Faculty in Calgary to offer instruction in Educational Administration and in Senior Science. This resulted in a more equitable load distribution on the part of two or three Education staff members.

The instructional staff now consists of four Faculty of Arts and Science instructors, ten Faculty of Education instructors, three part-time lecturers in Education, five members of the staff of the Institute of Technology and Art and the librarian. All instructors are well qualified in their respective fields.

Staff members counsel and assist students in the following activities: Practice Teaching, Guidance, Educational Club, Choral, Drama and Art Clubs, University Athletic Board, Medical Services.

Faculty council meetings are held monthly, immediately after the Education Faculty Council meetings in Edmonton. The business of the Edmonton Faculty Council meeting is thoroughly reviewed and matters of local concern are discussed.

Miss Olive M. Fisher retired from the staff in September 1950 and was granted an honorary LL.D. at the fall convocation in Edmonton in October 1950.

Staff members are in general interested in advancing their own educational qualifications. Of the fourteen regular instructors, including professors from the Faculty of Arts who offer courses in the B.Ed. programme, five have completed doctoral qualifications, four are pursuing their doctoral studies, and four others have completed at least two university degrees.

During the year the Branch suffered a tragic loss in the death of Professor Graham Millar of the Departments of Mathematics and Physics. Mr. Millar was a true friend, a cultured gentleman, and an intelligent scholar.

Practice Teaching

An innovation in the 1950-51 term was the extension of the Bachelor of Education practice teaching in the second year of the programme to nine full weeks.

The rural and urban demonstration work constitute a necessary component of the teacher-training programme. Nineteen rural schools of the Calgary Rural School Division No. 41 were utilized in connection with this programme. Faculty staff members travel to and from these rural schools to direct project work and to conduct student evaluation in practice teaching activities.

Student Affairs

While major emphasis is placed on the students' academic performance, it is necessary to include extra-curricular activities with a view to the development and maintaining of a university tone or atmosphere in student affairs.

In the fall of the year a Freshman week is held immediately prior to registration. During the course of the winter session groups of students travel to Edmonton

for inter-branch games and social events. Such activities are stimulating to the student body and assist in giving the students at the Calgary Branch a sense of belonging to the main University in Edmonton.

Based on the new constitution of the Calgary Committee on Student Affairs as approved by the Board of Governors, two meetings were held in Calgary just prior to the corresponding meetings in Edmonton. The president of the Calgary Students' Union reported on the Calgary student affairs at these Edmonton meetings.

The Work of the Assistant Provost, Mr. E. W. Buxton

The fact that many of the students attending the Calgary Branch are enrolled in the special one-year programme creates a problem of maintaining continuity in student government from year to year. Every member of the Student Council for the year 1950-51 was obtaining his first experience in student affairs at the university level. This difficulty, however, did not prevent the responsibilities of all officers from being capably and intelligently discharged. Mr. John Rhodes, President of the Students' Union, and Mr. Lorne Wiley, Student Treasurer, have merited special commendation for their unfailing attention to the many duties of their offices and for their efforts on behalf of the student body.

Two activities of the Council should prove beneficial to students attending the Calgary Branch in the future. The amendment to the Constitution which changed the Points Act to an Awards Act clarifies the method used in granting awards and makes the procedure conform more closely to that used in Edmonton.

The proposed revision of the Medical Services programme in Calgary has been submitted to the Medical Services Board in Edmonton for evaluation and possible submission to the Board of Governors.

Because of the efforts of the Disciplinary Committee, the infraction of University regulations was minimized, and the few problems that occurred were of a minor nature.

Extension work carried on by the staff

All staff members assist with such rural and urban extension work as radio talks, addressing teachers' institutes, conventions, and workshops, home and school association meetings, service clubs, and high school graduation ceremonies from Red Deer south to the American border. Certain staff members also assist with curriculum revision work and serve on curriculum committees of the Provincial Department of Education.

Professionalism

The Education Undergraduate Society is active at the Calgary Branch. Students participate in forums, in the Western Canada Student Conference, and listen to lectures and discussions on professional matters.

The Annual Closing Exercises

The Closing Exercises were held on April the sixth with President Stewart as guest speaker. For the first time since the inception of the Calgary Branch an academic procession was organized. This function, although not actually a graduation day, is a banner event in the lives of the students, and every effort is made to make it a serious, impressive, and colorful occasion. It is one means of trying to make the one-year students feel that they are members of the university organization.

Student Advisory Services—Calgary Branch

Frequent and direct liaison is maintained between the Director of Advisory Services in Edmonton and our appointed Supervisor of Advisory Services at the Calgary Branch. The liaison is both personal and through regular avenues of communication. Dr. Cook keeps the branch "briefed" on procedures and records. His personal visit to Calgary in April 1951 was extremely helpful.

University Forum—Calgary

The University Forum, the function of which parallels the Philosophical Society in Edmonton, serves the student body, staff, and Calgary public. During 1950-51 the theme of the lectures was "Research". The proposed series for 1951-52 aims to emphasize the educational needs of our Canadian society of today. University presidents from the four western Canadian provinces have been approached with a view to assisting at the series.

Administration liaison between Edmonton and Calgary

The Director of the Calgary Branch maintains direct contact with various administrative branches in Edmonton. He attends meetings of the General Curriculum Committee and the Junior High School Curriculum Committee of the Provincial Department of Education, the Board of Teacher Education and Certification, Education Faculty Council, Edmonton, General Faculty Council, and Senate meetings. These administrative contacts facilitate the task of directing the Calgary Branch, and at the same time provide essential information for the director and his staff.

Report of Dean R. M. Hardy of the Faculty of Engineering

The number of students in this faculty is 544, compared to 769 last year, and 960 for the peak registration of the post war period in 1947-48.

While the total registration is now only 57 per cent of the peak registration during the session 1947-48, it is about double the average registration in the 1930-40 period.

The employment opportunities for both graduating and undergraduate engineering students are exceptionally good; particularly in the Alberta area. The concern that has existed during the past two years that the excessively large numbers of young engineers graduating from the Canadian Universities could not be absorbed satisfactorily into the economy of the country has proved to be unwarranted. The demand for graduates in all branches of engineering this year considerably exceeds the supply in this area. Moreover if industrial activity continues at its present level for the next few years, there is every indication that the severe shortage of young engineering graduates will continue. It is particularly unfortunate that the wide opportunities for graduates in mining engineering are not generally recognized by young men entering the Engineering Faculty.

The joint study by the Department of Education and the General Faculty Council concerning University entrance requirements and co-ordination of high school and University courses has produced special problems in the curricula of the engineering courses. As a result a critical examination of the curricula of this Faculty has been initiated.

Instruction at the graduate level has continued in each of the four engineering departments.

The senior member of the staff in the Mining Engineering Department continues as supervisor of research on the Athabasca oil sands project of the Alberta Research Council. Work on an ore dressing problem was also continued in this department as part of a graduate student program.

In the Department of Electrical Engineering the final report dealing with the cost of generation of electrical power in Alberta was completed in co-operation with the Alberta Research Council and the staff of the Department of Political Economy. Research was continued on electrical methods of Purifying Saline Waters, and work on a High Frequency Measuring Device was also continued.

In the Department of Chemical Engineering research programs on the "Flow of Two-Phase Air-Water Systems in Vertical Pipes" and the "Flow of Non-Newtonian Fluids" were continued, the latter project being under National Research Council sponsorship. The following research projects were continued on fellowships: "The Catalytic Oxidation of Redwater Asphalt Base Stock" (Shell Oil fellow), "The Construction of an Electrical Model of a Petroleum Reservoir" (Imperial Oil fellow), and "Crude Oil Rheology and Pipeline Flow Problems" (Interprovincial Pipeline fellow). The new Utilization of Natural Gas project of the Alberta Research Council was continued under the supervision of the staff and using the facilities of this department.

Research work continued in the Civil Engineering Department on a number of projects. Two projects were initiated under the auspices of the Concrete Research Fund contributed to by the concrete industry, including contractors, products manufacturers and cement manufacturers. These were concerned with steam curing of concrete products and pre-stressing techniques. The project concerned with the failure of pavements at trolley bus stops and financed by the National Research Council was completed. The Prairie Rural Housing Committee program dealing with Rural Sanitary Facilities was also completed. The Highway Research Project, supervised from the department and using the facilities of the soil mechanics laboratory, was also continued. This project was again financed by contributions from the National and Alberta Research Councils, the Canadian Construction Association and the Prairie Roadbuilders Section of the C.C.A. Valuable co-operation was also again received from officials of the Provincial Department of Public Works and private contracting organizations in the road construction industry. A project entitled "Cutout Research" and dealing with the stress distribution around large openings in thin aircraft structure plates was also undertaken with financial support from the National Research Council. Work was also continued on the problem of stresses in ice sheets over bodies of water.

The Department of Chemical Engineering in co-operation with the petroleum industry and the Extension Department of the University continued to service the petroleum industry with short courses and advisory services in connection with the joint Canadian Association of Oilwell Drilling Contractors and University Supervisory Training program. Three ten-day schools were conducted, being respectively an "Oil Treating School", a "Mud School" and a "Gas Metering School".

Specialized technical service to industry in the Province was continued by all four engineering departments, with the major services being provided through the Civil Engineering Department in the fields of concrete and soil treating.

Relationships between industry in the Province and the Engineering Faculty have continued on a most satisfactory basis. It is gratifying to recording an increasing

interest on the part of industry in the support of the activities of the Faculty at the graduate level.

Report of Dean W. F. Bowker of the Faculty of Law

Enrolment

Noteworthy is the fact that 56 students will be graduated. The comparison with other years is interesting. From the first class in 1924 until world war II the largest class was 23. The number fell as the war proceeded. The figures since then are: 1945, 3; 1946, 8; 1947, 11; 1948, 17; 1949, 17; 1950, 36; 1951, 56. This year's class is the crest of the wave of ex-servicemen. Next year the number graduating will decline to about 40 and the year after to about 35. It will probably settle at around 30.

Employment of Graduates

A year's articleship after graduation is prerequisite to admission to the bar. It is a vital part of legal education.

The system requires: (1) that each graduand find an office in which to article; (2) that the student receive the widest experience during the year.

Obviously, the more students there are in relation to the number of good offices, the poorer the training. It is significant that this year's large class is having little trouble in finding good offices in which to article. Moreover, a substantial number of graduands from other provinces have come to Alberta to article in the last two or three years.

How can the province absorb so many more students in the past two years than ever before? Because of the unusual growth in the province. The city firms are expanding; new firms are being opened; governments, trust companies and oil companies want more young lawyers than ever before.

At the same time, it would not be wise to lower standards for the sake of meeting a temporary demand. Had the University and the Law Society lowered standards for veterans, many more would have been graduated by this time and admitted to the bar. Every other law school in western Canada has graduated many more students than has this faculty. The main explanation of this is that the minimum elapsed time between matriculation and admission to the bar was shorter in all of these provinces than here. As stated above, many of them have come to Alberta, and more plan to come.

The significant fact is that the bulk of the veterans have now been graduated without any reduction in the usual standards, and that their opportunities are good. The urgent need in the cities has largely been met, but there are still good opportunities in the smaller centres. It is to be hoped that by another year newly admitted members of the bar will go out to the small towns where the need is greatest.

Staff

With four full-time members on the staff it has been possible to eliminate double classes, and to attend to administrative matters which take more time with larger enrolment. Once again the thanks of the faculty are given to the sessional instructors who are all practising lawyers. Nearly all are young men who have given valuable assistance. Unfortunately this is the last year of teaching for L. Y. Cairns, K.C. For over twenty years he has taught Practice (and has given courses

in the School of Commerce as well). He is an excellent teacher and has continued for so long at the urging of the faculty and at personal sacrifice. His influence on many generations of students extends far beyond the subject matter of his courses.

Curriculum

Ever since the war study has been given to this question. In England, the United States and Canada, the subject is under re-examination. What are the aims? What changes should be made in methods of teaching? What courses should be dropped or added? Vigorous controversies centre on all these questions. It is hoped that by another year the study of this question will be complete.

Library

The law library has been greatly improved since the end of the war. The text books were very inadequate. Now there is at least one copy of nearly every standard text in the subjects taught. The number of sets of law reports has been increased three or four fold to meet the large enrolment. Next session the reading room will be in the new Rutherford Library. For the first time in the thirty year history of the school there will be supervision of the law reading room. Because of the physical arrangement, the students have had to look after the library themselves and have been on an "honour" system with respect to taking out books. They are to be commended for their care of the books.

Graduate Study

One student, John Parry, is completing two years at Oxford University under a Beaver Club Scholarship. Another, Crawford Ferguson, is completing his first year under a Rhodes Scholarship.

None is in graduate work in Canada or the United States. Since the war most of the better students have been veterans. Being older and usually married, they have not undertaken graduate work. Now that the students are younger it is hoped that more will engage in further study.

Research

All of the full-time members of the staff are in their first years of teaching. Thus the preparation of courses is a full-time task. On the other hand, all but one are engaged in graduate work at the moment. They are anxious to engage in research and to contribute articles to legal periodicals.

Law Society of Alberta

The faculty has always enjoyed the most cordial relations with the Law Society. For the past five years the Dean has been invited to address the annual meeting of the Society on matters of interest in legal education. Moreover the executive of the Law Society now invites the Dean to be present whenever legal education is under consideration at its meetings. The past two years have been difficult by reason of problems of admission from other provinces and certain criticism of professions generally. These problems appear to have been satisfactorily met.

Summary and Conclusion

The significant points are: (1) the large size of the graduating class; (2) the high calibre of the students and of their work and morale—55 of 141 were veterans; (3) the good opportunities for graduates; (4) the satisfactory status of

the teaching staff and continued valuable help from part-time instructors; and (5) the cordial relations with the Law Society.

Report of Dean J. W. Scott of the Faculty of Medicine

Teaching at both undergraduate and graduate levels has continued as the major activity of the Faculty of Medicine.

Demands for admission by veterans are now pretty well met and most applicants for admission to Medicine in 1950 were civilians without previous service in the armed forces. The number of applicants remained high and all departments have strained their facilities to accommodate as many students as possible. Fifty-four students were admitted to First Year Medicine in September 1950. Six students from the University of Saskatchewan were admitted to the third year.

The Faculty of Medicine sustained grievous loss in the deaths of Dr. T. H. Field, Honorary Instructor in Clinical Medicine, and Dr. W. N. Gourlay, Instructor in Clinical Surgery.

At the end of this session Dr. J. J. Ower retires as Professor of Pathology following a long association with the Faculty during which he served as Dean from 1945 to 1948. He will be succeeded by Dr. J. W. Macgregor.

The combined course leading to the degrees B.Sc., M.D., was abolished by the Faculty Council and with this the pre-medical class as a unit will disappear. Requirements for admission to the first year of Medicine were set at two full years of University work with full courses in Organic Chemistry, Inorganic Chemistry, Physics, and Zoology. It is felt that this change will assist in liberalizing the training of applicants and allow them two extra years in which to make their vocational decision. It is also hoped that the former misunderstanding and confusion caused by the term "pre-medical" will be eliminated.

The appointment of a number of well-trained young men to the staff of the preclinical and clinical departments has greatly increased the efficiency of teaching in the faculty.

Graduate training has been offered by both basic science and clinical departments. Twenty-one students worked toward the M.Sc. degree in four basic science departments. Twenty-four medical graduates were registered in a four-year training course leading to Certification or Fellowship examinations in some specialty. Ten such trainees have now completed their training and have returned to practise. Of these, seven are practising in Alberta and only one left Canada.

The annual Refresher Course will be presented again this year in May for the benefit of practising physicians. Last year the attendance at this course was 192.

Active programs of research have been carried on in all basic science departments and in four of the clinical departments. The list of publications indicates the number and variety of problems under investigation. Research has been supported by grants from the Medical Research Fund, the National Research Council, and the National Cancer Institute.

In March, 1951, the Faculty of Medicine was host to the Western Regional Group of the National Research Council during its annual meetings.

Report of Professor Helen E. Penhale, Director of the School of Nursing

During the past year the attention of the School of Nursing was directed toward the education of the professional nurse of the future. Admittedly, today's

practising nurse was educated in a different world—a world in which five years is as a generation in respect to social change. A few of the subsidiary issues about which this matter revolves are the relation of general to professional education and the amount of clinical experience necessary for learning to take place. The nurse is required not merely to concern herself with improving technical operations, but to know what relationship her profession should have to society.

Plans to implement this broader view were incorporated in the degree course. The course as proposed provides for an integration of the sciences and the humanities throughout the entire course. It is believed to be sound both professionally and academically to streamline the technical portion of the nursing course and require only four years rather than the usual five in order to qualify for the degree, Bachelor of Science in Nursing. After continued study on several unresolved problems, it is hoped that the new program can be offered in the fall of 1952.

The one-year post graduate courses were revised in order to eliminate certain duplications in subject matter and possible omission of content deemed essential in the light of present-day thinking. The subject-matter has been integrated and co-ordinated in a more logical sequence.

Keen interest continued in post graduate education. The Advanced Course in Practical Obstetrics was offered during the four-month period—September to January. The five students enrolled successfully completed the course and are now in district nursing positions with the Provincial Department of Public Health. This course, started in 1943, has been of great assistance to nurses working in the more rural areas throughout Alberta.

The Dominion-Provincial Professional Training Grant bursaries available to graduate nurses resulted in an increased enrolment in the one year diploma courses in Public Health Nursing and in Teaching-Supervision in Schools of Nursing. Thirty-nine graduate nurses registered for these courses—nineteen in Teaching-Supervision and the remainder in Public Health. This year marks the fifth year that the Teaching-Supervision course has been offered. Registration has increased each year—from ten students in 1946-47, to the present nineteen. These students have been placed in the eleven schools of Nursing in the province. This fact is of particular importance to the University because of its responsibility for the supervision of nursing education.

The W. K. Kellogg Foundation Fellowship program for Canadian University Schools of Nursing was offered to the School for the third year. One graduate is pursuing further study under this plan at the University of Chicago.

The members of the staff continue to take an active part in nursing activities throughout the province. Refresher courses on "Improving Nursing Care" were offered in Edmonton, Calgary and Lethbridge. A work shop on "In-Service Education" was conducted by Professor F. Kempf of Michigan State College, Lansing, Michigan. Home Nursing was again offered to Farm Young People.

The student enrollment continues to increase. In 1945 the total enrollment numbered one hundred and seventy-six students and in 1950, two hundred and fifty-eight. Two additional wings now under construction at the Nurses' Residence will materially strengthen the educational program for the students. A co-educational program directed by the Student-Faculty Co-operative Government is anticipated for the coming year.

During the five year period since the School of Nursing was reorganized considerable progress has been made. Much is yet to be accomplished if the School of Nursing is to maintain its position among the leading Schools of this continent.

Report of Dr. M. J. Huston, Director of the School of Pharmacy

Academic

In order to broaden the education of pharmacy students several innovations were introduced this year. A short course in first aid was included in the first year curriculum. Students in the third year, singly or in small groups, spent an afternoon (a) studying the function of a hospital pharmacy, (b) observing the operation of a drug wholesale house, and (c) accompanying a medical services representative.

Staff members continued advanced studies or carried on research work. Mr. B. E. Riedel was away during the year on leave of absence to undertake work towards the doctorate degree at the University of Western Ontario. Mr. J. R. Murray spent the summer months at the Ohio State University. Dr. M. J. Huston carried on research during the summer at the Kerckhoff Institute of Marine Biology.

Research

Two M.Sc. students carried on investigative work in the department. Their work was assisted by grants totalling \$1,750 from the Canadian Foundation for the Advancement of Pharmacy.

Some synthetic compounds were sent from the Department of Chemistry of the University of Saskatchewan to be tested for estrogenic activity.

Projects being investigated include the following: estimation of the water compartments of a gastropod mollusc; the action of cardiac glycosides on intestinal muscle; the action of depressant drugs on striated muscle; the application of paper chromatography to alkaloidal assay; tensiometric and capillary rise measurements of the effects of certain emulsifying agents; the use of solubilized oils in pharmacy; emulsified suppository bases; the effect of detergents on skin pH; incompatibilities of pyribenzamine; the use of the titrimeter in the assay of sulfonamides; development of a new method for recording the rat heart beat; investigation of the fluorescence of powdered vegetable drugs; the determination of solute spaces.

Extension

Practising pharmacists are more and more turning to the School for help and advice on specific and general problems. This has necessitated many interviews and much correspondence.

Four extension bulletins covering recent advances in pharmacy were prepared and distributed to the pharmacists of the province.

The School again organized a two day Refresher Course in conjunction with the annual meeting of the Alberta Pharmaceutical Association.

Report of Dean John Macdonald, Chairman of the School of Graduate Studies

Registration

During the academic year, 1950-51, 268 students were registered in the School of Graduate Studies. The distribution of students, according to degrees sought, has been as follows:

	Men	Women	Total
Master of Arts	37	10	47
Master of Science	52	4	56
Master of Science (Agr.)	33	1	34
Master of Science (Eng.)	22	.....	22
Master of Education	44	10	54
Bachelor of Divinity	12	1	13
Special Grads.	38	4	42
	<hr/> 238	<hr/> 30	<hr/> 268

Of these, 17 cancelled their registrations during the year. There is an over-all decrease of 4 compared with the number registered in 1949-50.

The distribution of candidates according to departments has been as follows:

Anatomy	1	History	14
Animal Science	3	Mathematics .....	.....
Bacteriology	5	Medicine	1
Biochemistry	7	Modern Languages	4
Botany .....	.....	Pharmacy	2
Chemistry	9	Phil. and Psych.	15
Dairying	3	Physics	4
Education	54	Physiology	1
English	2	Plant Science	18
Entomology	5	Political Economy	12
Engineering:		Soils	5
Chemical	7	Zoology	8
Civil	8	Specials	42
Electrical	6	B.D.	13
Mining	1		<hr/>
Geology	18	Total.....	268

Progress During Session

There are no special developments to report in regard to the general work of the School during the session. It is worth noting, however, that this session the School has approved the applications of three candidates for the Ph.D. Two of these candidates will be in the field of Biochemistry, one working under Dr. Collier and the other under Dr. Tuba. The third will be in the Department of Plant Science working under Dr. Unrau. In addition, there has been an application from a candidate from Upsala, Sweden, who is interested in the special work carried on by the former Professor Fryer and now continued by Dr. Johnson. The School felt that this applicant seemed to be well fitted for a program of studies leading to the D.Sc. degree in accordance with our regulations. He is prepared to come to the Department of Plant Science in that capacity.

I should draw your attention to the fact, which has probably already been mentioned to you by Mr. Whidden, that fee arrangements will require to be made in connection with the Ph.D. candidates. In connection with fees, I may remind you that, as stated in the minutes of the School, the School felt that it was anomalous and undesirable to ask a second registration fee from students who were given postponement for the theses presentation until the fall. Certain departments have represented that it is very desirable that postponement to the fall should be freely given in any case where it is felt that quality of the thesis will be improved by this action.

Recommendations for Degrees

The number of students recommended for master's degrees are as follows: M.A., 10; M.Sc., 21; M.Sc.Agr., 13; M.Sc.Eng., 3; M.Ed., 3.

Report of Dr. J. W. Gilles, Director of the Summer Session

Registration and Attendance

The advance registration for the University of Alberta Summer Session of 1950 reached the total of 2,113. Cancellations were received from 66 students; 346 students registered but did not attend. As a result, only 1,701 students appeared for classes. This, however, represents an increase in attendance of 200 students. A summary of the attendance figures follows.

	Veterans			Civilians			Total
	Men	Women	Total	Men	Women	Total	
Education	178	9	187	468	876	1344	1531
Arts and Science	25	5	30	45	31	76	106
Commerce				3		3	3
Pharmacy	5		5	1		1	6
Engineering				3		3	3
House Ec.					3	3	3
Nursing					5	5	5
Auditors				1	3	4	4
Specials				2	2	4	4
	208	14	222	523	920	1443	1665
Calgary	16		16	20		20	36
	224	14	238	543	920	1463	1701

Percentages by Faculties

Education Students, 92.1 per cent; all other students, 7.9 per cent.

The number of students who registered but failed to appear reached the highest figure in recent years. In 1950, 346 registered but failed to attend. In 1949, 219 fell in this category. On the other hand cancellations of registration declined from 173 in 1949 to 66 in 1950. I believe that the increase in number of students who register but fail to attend results from commencing registration in November. It would seem that any extension of the period between registration and opening of the Summer Session has the result of increasing the number of students registering but failing to attend.

Instruction

The Summer Session staff was composed of 53 members of the University Staff, 14 instructors drawn from the Department of Education, 11 instructors drawn from the school systems and elsewhere in the province, and 14 visiting instructors. Of the visiting instructors, 4 were secured from the United States. The total number of instructors reached 92, 6 more than were appointed in 1949.

The visiting instructors included Mrs. Walter Gainer from Allston, Massachusetts; Dr. Stanley Clarke, from San Luis Obispo, California; Mr. Denis Goodale, from Regina; Mrs. Rae Johnson, from Oneonta, New York; Dr. D. E. Mahood from the Provincial Normal School, Moose Jaw; Miss Agnes Matthews, Principal, St. George's School, Montreal, Que.; Dr. W. J. McIntosh, Jarvis School for Boys, Toronto, Ontario; Mr. J. N. Medhurst, from Toronto, Ont.;

Mrs. Nita E. Murphy, from Vancouver, B.C.; Mr. Arthur Rezny, Assistant Superintendent of Schools, Royal Oak, Mich.; Miss Carlene Rose, University of British Columbia, Vancouver, B.C.; Dr. G. W. Snelgrove, University of Saskatchewan, Saskatoon, Sask.; Miss Audrey Taylor, McGill University, Montreal, Que.; and Mr. Russell West, Assistant Superintendent of Schools, Ann Arbor, Mich.

Miss Mabel Everett was compelled to withdraw from the Summer Session staff in the second week due to the serious illness of her mother. Mrs. Rae Johnson, of Oneonta, N.Y., was able, however, to take responsibility for the work which Miss Everett was intended to handle. Excellent reports were received concerning the work of all visiting instructors. I was particularly impressed by the work of Mrs. Rae Johnson and Mr. J. N. Medhurst. Some concern must be felt over the fact that certain courses have unreasonably heavy enrolments. This is particularly true in Education courses required for the degree. This resulted, for example, in an enrolment of 220 students in Education 476. Enrolments of over 100 occurred in several other courses.

Courses

Seventy-five full courses and fifteen half-courses were offered in Edmonton and Calgary branches of the Summer Session. Of the seventy-five full courses, twenty-three were laboratory courses, in which is included shop, drama, music, as well as the physical sciences. Sixty-eight full courses were offered in Edmonton and seven in Calgary.

The Problem of Student Preparation

For years it was found that one of the greatest weaknesses of the Summer Session program seemed to be the lack of adequate preparation by students for the courses in which they were registered. During the past two years a tentative list of courses has been published in the Alberta Teachers' Association magazine in November, and registration commenced at that time. The Summer Session Announcement was made available early in January. The net result was that this year approximately 1,500 students were registered by April 15. While early registration does not necessarily imply preparation, I would recommend that the procedures for facilitating early registration employed during the last two years be continued.

After three years of observation of our Summer Session I have reached the conclusion that the ideal solution of the problem of adequate attainment would be the lengthening of the Summer Session period and the removal of emphasis on pre-session study. Since the teachers, however, have only two months away from their instructional duties, it does not seem opportune to increase the length of the session materially. In 1950, in response to repeated complaints of certain instructors and students, it was decided to lengthen the Summer Session to the extent of placing the final examinations on the Monday and Tuesday following the completion of six weeks of instruction. Generally speaking, the reaction to this change has been negative, the students feeling that it cuts further into their short vacation period. I would recommend, therefore, that although I do not regard early registration and a six-week Summer Session as ideal, it does seem to be the best possible arrangement at the present time.

Reports of Provost, Adviser to Women Students, and Wardens

The Provost reports a pleasant, uneventful summer. The Adviser to Women Students gives particular emphasis in her report to a most important phase of her work, entertainment of visiting instructors. The Warden of Pembina Hall reports an extremely busy six weeks in which a great deal of energy was apparently displayed in regulating the life of the girls in residence and providing for special events for their entertainment. She recommends that a telephone be installed in the room assigned to the Warden of Athabasca Hall, and secondly, that on July 1 and on the day preceding the opening day of the Summer Session, a secretary remain on duty in the office of the Bursar to help solve problems relating to assignment of rooms. The Warden of Athabasca Hall reports an active program aimed at providing for the comfort and entertainment of girls in residence. The Warden of Assiniboia Hall raises several problems which merit consideration by the Administrative Committee. The regulation regarding proper dress in the dining room at formal meals in hot weather apparently aroused antagonism and the House committee expressed itself in favor of either enforcing the regulation strictly or abandoning it. The parking of cars in Summer Session caused certain difficulties but this problem seems to have been solved successfully by the Warden. The recommendations of the Warden of Assiniboia Hall are worthy of study. However, the majority of them can be implemented by vigorous action by the Warden and the House committee at the commencement of the next Summer Session.

Special Events Program

This year, the Special Events Program consisted of one address, four musical evenings, and a demonstration of folk and square dancing. An honorarium of \$25 was paid to Mr. Russell West who spoke on the topic, "Our Faith in Education". A similar honorarium was paid to Mr. Edgar Williams for an enjoyable violin recital, and to Miss Doreen Stanton and Miss Donna Gail Richards for their piano and song recital. Of these three, the piano and song recital proved most popular. The lecture recital of Mr. Arthur B. Crighton proved to be an interesting introduction to the organ and demonstration of its potentialities. The workshop demonstration of the dance directed by Miss Patricia Austin was highly popular. Miss Austin is to be commended for instituting weekly programs of recreational folk and square dancing. The recital of choral music with the combined music classes under the direction of Mr. Keith Bissell and Mr. Arthur B. Crighton was highly successful. The drama department, staffed by Professor R. H. G. Orchard, Mrs. Leona Paterson, and Mr. J. N. Medhurst, staged a number of demonstrations of drama suited to the level of the elementary and secondary school. In a succession of programs, a group of children were brought along from the status of beginners to a highly commendable level of performance. In this connection I feel it my duty again to refer to Mr. J. N. Medhurst, who seems to have brought to Alberta a new insight into the possibilities of children's theatre.

The Calgary Branch

The Calgary Branch was again under the direction of Dr. James Fowler. Seven courses in Industrial Arts were offered. I devoted a full day to the inspection of the Calgary classes and found a highly satisfactory type of work in progress.

Registration in the Calgary Branch consisted of 36 students as opposed to 41 in 1949 and 42 in 1948. It is noteworthy that 6 of the 36 students were from other provinces. The trend towards lower registration in Calgary is approaching the acute stage at which a decision must be made as to whether the Calgary Branch of the Summer Session will be continued or not. Certainly an organization which involves the overhead charges of a Director, a secretary and a storeman is unduly expensive for the number of students registered in shop courses.

The Problem of Civil Servants on the Summer Session Staff

For several years the Cabinet has protested against payment of honoraria to officials of the Department of Education working on the Summer Session staff. This year the Premier expressed the wish that no civil servant should receive an honorarium from an external source while drawing a salary from a government department, save when on vacation. The result of this was to permit instructors appointed for three-week periods to receive salaries and honoraria if they instructed during their vacation periods. In the case of instructors teaching a full course over a six-week period, it was necessary for them to take three weeks' leave of absence without salary during which their salaries had to be met by the University. The second three weeks of the six-week period was presumed to be vacation time during which they received salary from the government. In addition to their salaries being paid successively by the University and the government, they were allowed to receive the usual honoraria for teaching a course in the Summer Session. The effect of these changes has been felt in two ways. First, the University has had to pay honoraria and salaries for three weeks to civil servants teaching in the University Summer Session for a six-week period. This makes these instructors the most highly paid instructors in the Summer Session. Second, it has compelled all instructors appointed from the civil service to forego their vacations. I recommend, therefore, that the University report to the Premier that this method of appointing officials of the Department of Education to the Summer Session staff is unsatisfactory and should be discontinued. If it is not, future Directors of the Summer Session will be inclined to search elsewhere for instructors who can be employed at the usual honoraria. This would be unfortunate, since the Summer Session will suffer if the closest of relationships are not maintained with senior officials, high school superintendents and superintendents of rural divisions drawn from the staff of the Department of Education.

Student Affairs

Two meetings of the Students' Union were held during the Summer Session as is required by the Constitution. The usual social and athletic activities of the Union seem to have been carried through in a satisfactory manner. Liaison between the student governing bodies of the winter and summer session of the University was maintained by Mr. Cuthbertson, who represented the summer session Students' Union at several meetings of the Students' Union during the winter session. The services of the secretary-accountant of the Students' Union, Mr. Dinwoodie, have been made available to the summer Session. This has had the effect of rendering accounting more systematic and also increasing the degree of association between summer and winter session. Summer Session students particularly enjoyed conducted tours through the Students' Union Building and look forward to its use in future Summer Sessions.

The Executive of the Students' Union of the 1950 Summer Session recorded its recommendations to the University Administration in the form of several resolutions. Aside from resolutions which are related to academic courses, they are mainly concerned that the University administration should, where possible, consult the Students' Union Executive in advance, regarding changes affecting their well-being. For example, they felt that they should have been consulted regarding (a) extension of the length of the Summer Session by two teaching days; (b) the curtailment of hours of the cafeteria; (c) the shortening of the Students' Union general meetings from two hours to one hour.

I am following my usual practice of referring resolutions relating to courses to the proper authorities who may take such action as they see fit. It is to be remembered that certain resolutions are sponsored by the Students' Union after discussion; other represent small minority groups and deserve less consideration. The only resolutions which I regard as worthy of consideration by the Administrative Committee are those headed "Resolutions Submitted by Students' Council and Approved by Council".

With reference to the curtailment of the length of the Students' Union meetings, I must, in honesty, report that they can hardly hope to cover their business in one hour.

With reference to the resolution concerning the length of the Summer Session, it is quite understandable that the teachers view any encroachment on their already limited vacation with alarm. I have already suggested that in my opinion it is probably wise to adhere to the six-week Summer Session for the present time. I take full responsibility for recommending to the Administrative Committee last fall the extension of the examination period into the seventh week. While defensible on grounds of efficiency, it met with widespread criticism from students and from instructors.

With reference to the resolution relating to informing the student body regarding changes in policy affecting their welfare, it is extremely doubtful if this is possible or advisable.

Routine of the Summer Session

The "Get-Acquainted" Tea for the staff of the Summer Session and their wives was quite successful. The staff meeting held on the evening of the second day was well attended and served a useful purpose in acquainting instructors with the routine of the Summer Session. Each staff member was asked to make suggestions for the improvement of the instruction in his course and to report on instructional procedures which had proved valuable. Memoranda were sent out to all instructors when it seemed advantageous to do so. Generally, they proved useful since there was evidence that they were filed and referred to frequently.

Visiting instructors were invited to many private homes. In addition, Miss Simpson, as Warden of Pembina Hall, and Mr. Ryan, as Warden of Assiniboia Hall, entertained them at dinner in residence. Miss Simpson organized a motor tour to historic points about the city on one occasion, and on another, arranged for a tour of the oil fields.

A special Sunday service was held in Convocation Hall with the Reverend Dean D. J. C. Elson as clergyman. The attendance seems to justify continuing this feature of the Special Events Program of the Summer Session.

Report of the Librarian, Miss Marjorie Sherlock

Library activity continued at a high level during the past year, although the total circulation of 174,533 represents a decrease from the 1949-50 figure of 186,180. This decrease is partly attributable to the decline in student registration, but partly also to the fact that with less crowding in the reading rooms more open-shelf books could be used in the library without the need for charging them at the desk and taking them elsewhere for study, as formerly. It is significant that the borrowing of books from the stacks, and of journals, pamphlets, and other reference material remained at the same level as in the previous year.

Staff

The University Library during the past year had a full-time staff of 24 (of whom 14 were professionals) and 6 half-time assistants.

Miss Helen Farquharson, Chief Cataloguer, resigned January 1st, 1951, because of ill-health. She had been a member of the staff since 1945, and her departure is a great loss to the Library. Her qualifications were of the highest order and her energy and ability played an important part in the reorganization of the Cataloguing Department during the past five years.

Quarters

This was the Library's last year in its old quarters, and the problem of space for readers and especially for books remained acute. During the winter preliminary preparations were made for the move to the new library in May 1951. All Departmental reading rooms and collections will be housed in the Rutherford Library with the exception of the two Education Libraries, in Edmonton and Calgary.

Order Department

For seven months of the past year Miss Leversedge, Order Librarian, directed the work of the Cataloguing Department as well as her own department, during the illness and after the resignation of Miss Farquharson. As this period included the preliminary preparations and planning for the move to the Rutherford Library our special thanks are due to her for her very efficient administration of the two departments.

In spite of these added duties, the work of the Order Department was maintained at its usual level with a new buying guide set up, and considerable special buying done for the Rutherford Library. During the year the Department ordered and received 4,414 volumes, including 400 volumes received and acknowledged as gifts.

Cataloguing Department

The work of this Department has been carried on under difficulties owing to the illness of the Chief Cataloguer and much credit is due to Miss Russell and Mr. Shipley as well as to the members of the clerical staff for the capable manner in which they assumed extra responsibilities and maintained the level of work.

Considerable work was done in preparation for the move to the new library. New card catalogues and shelf lists were made for the Law Library; and for the chemistry, engineering and agriculture collections, to be shelved in the Applied Science Reading Room. Book cards were typed for all the medical, dental, nursing and pharmacy books which will be brought together in the new Medical Reading Room.

During the year the Department accessioned 5,965 volumes; catalogued 7,546 volumes (including 521 bound journals); lettered 6,581 volumes; withdrew 100 worn or out-of-date volumes; and typed 31,947 cards.

Reference, Periodicals and Binding

This department is responsible for reference service to students and faculty, for periodicals, pamphlets and government documents, and for the binding of books and journals for the entire Library. During the year, 1,148 current journal subscriptions were placed (an increase of 65 over the preceding year); 1,874 journals and books were bound or rebound. The Interlibrary loan service was maintained at the same level as last year with 125 items borrowed from other institutions and 255 items loaned to other libraries. Forty-six microfilms were purchased for staff members engaged in research. The number of theses by our own graduate students added to our collection during the year was 71.

Circulation

Although the total circulation statistics of the Main Library were slightly down from those of the previous year, the work of the Circulation Department has not decreased appreciably, since the greater demand for books, journals and other special materials from the stacks has offset the decreased use of Reserve books. This tendency was noted last year and indicates that the students are continuing to do more independent reading as opposed to prescribed reading for their courses.

During the year the overnight circulation from the Main Library was 63,520 as compared with 67,096 for 1949-50. This includes: books and journals from the stacks, 19,364; books from the Reserve shelves, 37,349; "special" pamphlets, journals, etc., 5,666 as compared with 3,176 during the previous year; loans to extramural students, 1,141.

Branch Libraries

Education Library (Edmonton)—During the year, the Education Librarian, with three full-time assistants, circulated 59,159 books and journals. Of this number 18,053 were circulated during the six weeks of the Summer Session, and 380 were mailed to Extramural students.

In October the Education Librarian gave five talks to Freshmen, illustrated with slides, on the use of reference books and the card catalogue. The result was a noticeable improvement in student understanding and use of the library.

Current subscriptions to journals number 60, of which half are bound annually. New equipment included a 12-drawer filing cabinet for the picture collection and a 15-drawer extension to the card catalogue.

Education Library (Calgary)—This library serves the Faculty of Education at Calgary and contains reference books, texts, and general background reading for both Education and first year Arts courses.

This has been the busiest year in the history of this branch library. The Librarian in charge, with one assistant, circulated a total of 17,501 books and journals and 2,210 items of pamphlet and picture material, as compared with 12,570 books and journals and 810 pamphlets and pictures in 1949-50. Student attendance in the library was 24,317 as compared with 19,952 the previous year. Since this is an open-shelf library, circulation figures fail to indicate the actual use made of the books within the library. As formerly, instruction in library methods and the use of the indexes and other reference material was given to all students.

New equipment in this library included a microfilm reader for the use of members of the teaching staff. They are at a disadvantage in pursuing their own research, by reason of their distance from the Main Library. It is hoped to offset this by use of microfilm and interlibrary loans.

Medical Library—This year again there has been a slight decrease in the circulation of Reserve books for overnight use, while the use of books from the stacks and of bound and unbound journals has increased. Evening use of the library has declined, but the library has been used more during day-time hours.

Total circulation for the year was 19,313 as compared with 19,370 in 1949-50. The figures include: overnight circulation, 11,004; Reserve books, used during the day, 2,662; current journals circulated to staff members, 2,103; items loaned to city and rural doctors, 3,544. It is to be noted that this last item shows a marked increase—loans to city doctors having increased by 8 per cent, and to rural doctors by 84 per cent.

Current journal subscriptions to the Library number 268. We have continued to purchase back issues of various journals to complete our files. On interlibrary loan 34 items were borrowed, and 55 loaned to other institutions. The Medical Librarian continued to give instruction in the use of the library to Medical, Dental, Pharmacy and Household Economics students.

Agriculture Library—Circulation from this Reading Room for overnight use was 9,596 and attendance was 7,977 readers. These figures, however, give no indication of the increased and improved service provided by the qualified librarian in charge. The completion of the card catalogue and pamphlet file, the arranging and indexing of government bulletins and reports, and the availability of trained reference service were all matters of satisfaction to students and faculty members alike.

The *Nursing and Chemistry Reading Rooms*, each seating 20, were used to capacity. No record of use is kept in the former, but in the latter the number of readers was 5,978; and the overnight circulation approximately 4,000.

The *Law Library* continued to receive extremely heavy use. With 140 students registered in Law, working conditions in the two reading rooms have been crowded and difficult. Only forbearance and co-operation on the part of the students have made it possible to maintain service. They look forward to the fine facilities of the new library with relief and anticipation.

Stock of Books

During the year 5,965 volumes were added to the collection, and 100 volumes withdrawn, giving us a total of 112,438 accessioned volumes in the Main Library. In addition there are 14,000 accessioned volumes in the Education Library (Calgary) and some 10,000 as yet unaccessioned volumes in the Education Library (Edmonton), making a total book stock of approximately 136,438 volumes at March 31, 1951. There is in addition a large quantity of material (books, journals, documents, pamphlets) received as gifts during the last ten years, which because of lack of space we were unable to accession or catalogue. This has been in storage in various parts of the campus, and will be added to the collection after the move to the Rutherford Library.

Radio Talks

During the winter of 1950-51, 15 book talks were given by members of the University Library staff in the series "Books at Random" presented over CKUA in co-operation with the Extension Library. This was the sixth season for this series.

Report of the Provost, Professor H. T. Sparby

Student government at the University of Alberta has been well sustained during the past year. Not only have student activities been capably managed, but relationships between student officers and the University administration have been cordial and co-operative. This happy state of affairs was due in no small measure to the very able leadership provided by Mr. Michael O'Byrne, president of the Students' Union. Mr. O'Byrne's contributions to student life were recently given tangible recognition when he was awarded the J. D. O. Mothersill Memorial Scholarship for 1951. This is an award made annually "to a student selected for outstanding contribution to student life in the University especially through good citizenship and active support of student government".

This has been the first year of operation for the new Students' Union Building. The house committee which was set up to administer and supervise the building has discharged its responsibilities ably and well. Under the leadership of its chairman, Mr. Jack Fair, the committee drew up early in the year a set of regulations to govern the use of the building, and administered these regulations both intelligently and consistently during the remainder of the year. All the facilities provided by the building, offices, conference rooms, lounges and the games room, have served a wide range of student social and business needs throughout the year, and there are indications that the building will be put to even greater use in succeeding years.

At the fall meeting of the Committee on Student Affairs a report on the disciplinary responsibilities of the University administration and the Students' Union was presented by a joint faculty-student subcommittee which had been set up to study this question. Among the recommendations of the subcommittee the following were, perhaps, the most significant: (1) The Students' Union is concerned with all matters of discipline but it may hand over to the University administration any particular issue with which it would prefer not to deal. (2) It is always open to the University administration to take its own action in any matter which, in its view, has not been properly or adequately dealt with by the Students' Union. (3) The Students' Union should be given the first chance to deal with any disciplinary issue that may arise. Since these recommendations were approved by the Committee on Student Affairs, they might be looked upon as a general statement of University policy concerning student discipline. The willingness of the Students' Union to assume some responsibility for disciplining its members was confirmed later in the year when a group of eighteen men students were brought before the students' disciplinary committee and fined for creating a disturbance around the women's residences.

Mr. A. A. Ryan, Miss M. S. Simpson and Dr. M. H. Scargill, wardens of Assiniboia, Pembina and Athabasca Halls, report that students in residence have had a successful and pleasant year, with only a minimum of disturbance and disorder. One of the wardens reports that "students have expressed themselves as better satisfied over the course of the year with the dining room than in any previous year since the war". The men's and women's house committees, headed by Mr. K. Robin and Miss S. Moore, have not only assumed their full share of

the onerous task of maintaining order, but have also handled efficiently the house dances and other functions planned for the recreation of residence students. There is little doubt that the wardens' policy of treating the students as mature enough to handle their own discipline is a major factor in winning their good will and co-operation.

Miss Simpson, in her capacity as Dean of Women, continues to render a distinctive and invaluable service to the University. In assisting women students to solve their personal problems, in offering expert advice to student executives planning social functions, and in many other ways, she makes an extremely worthwhile contribution to student life on the campus. All this, of course, does much to promote good relations between the student body and the University. Miss Simpson reports that the opening of the Wauneita lounge in the Students' Union Building has stimulated greatly the activity of the Wauneita Society to which all University women belong. Once each month during the past year a different group within the society assumed responsibility for planning and directing some function of special interest to women students. Miss Simpson also reports that the mixed lounge in the Students' Union Building has proved ideal for club dances.

Much of the detailed work involved in administering the regulations of the Committee on Scholastic Standing is done in the Provost's office. Only students whose scholastic records are satisfactory are permitted to participate in University activities which are open to the general public. Participation in intramural activities is not regulated in this way. During 1950-51, the Provost reviewed the individual scholastic records of members of 21 student organizations, including athletic teams of all kinds, the University Mixed Chorus, the Drama Society, the McGoun debating team, and others. Among the 367 individuals whose records were reviewed, only 18 were found to be ineligible.

The number of fraternities on the campus remains the same, eight men's and four women's. The over-all administration of these organizations is in the hands of the University Committee on Fraternities and Residential Clubs, although much of the detail is handled by the Inter-Fraternity Council and the Pan-Hellenic Association. These latter are organizations set up by the fraternities themselves. Each of the men's fraternities elects two representatives who form the Inter-Fraternity Council and each of the women's sororities elects two representatives who form the Pan-Hellenic Association. A commendable development in fraternity affairs on this campus during recent years has been the increasing responsibility assumed by these two organizations for regulating the activities of the individual fraternities. The Provost and the Dean of Women are in close touch with the work of the Inter-Fraternity Council and the Pan-Hellenic Association, frequently attending their meetings in an advisory capacity.

Report of the Director of Student Advisory Services, Dr. A. J. Cook

The department came into being on September 1, 1950, with the Adviser to Student Veterans, Dr. A. J. Cook, assuming the position as Director.

Considerable time has been spent during the past session initiating policy, in line with the recommendations of the report of the Special Committee as approved by General Faculty Council.

A counselling service is personal. It is only useful if it assists with the personal growth of the student; more particularly with developing the sense of confidence, initiative and responsibility.

The Prospective University Student

Heretofore the contact of the University with prospective students has mainly been focussed in the registration proceedings in September. The Schools too have had little direct contact with the University, except by way of calendars. Their job was to prepare the student for matriculation examinations.

Steps are being taken to draw the Schools and the University closer together, in the interest of the prospective university student:

1. A new bulletin "Information for the Prospective University Student" has been written to enable the student to find the answers to his questions in straightforward terms. Distribution is mainly through the Schools.

2. The student is being encouraged to complete his application for admission to the University before leaving school. More adequate information is being obtained about the student, with a view to assisting him in his choice of course, etc.

3. The Director, with the cordial support of the Guidance Branch of the Department of Education, is visiting Provincial High Schools in a more systematic way than has hitherto been possible.

4. Parallel efforts are being made, using press and radio, to reach prospective students who are no longer in school.

Counselling the Undergraduates

It is a mistake to assume that the only students who seek counsel are those in difficulty with their studies. Often the student is uncertain about his course. He has completed two years pre-law successfully. Should he enter Law? etc.

The Director aims to take a personal interest in the progress and development of the able student. The First Year Committee has arranged that in future the records of all scholarship students will be specially observed.

Students in Academic Difficulty

Initial steps have been taken to work out procedures with the various faculties to ensure that the student in academic difficulty receives attention at the earliest moment. The Director was completely occupied from January to mid-March with such students.

Progress from One Year to Another

The University insists that students must complete the subjects in a given year satisfactorily before proceeding with the next year of the course.

New policy has been devised and approved which directs all students whose progress is unsatisfactory to seek re-counselling. This task will be undertaken during the summer months.

Individual Differences

A counselling service, to be effective, must be equipped with means of assessing individual differences. As public education develops, the inefficiency and wastage, which is considerable at the moment, can be reduced through the wise use of such means.

Some Faculties have begun to use such devices. Plans are being made to make their use more coherent.

Student Services

(a) *Housing.* The Director acted as adviser to the student committee in charge of the housing of married veterans during the past session.

The bureau concerned with the housing of non-resident students has been taken over from the Students' Union at the request of the Students' Council. It will continue to operate under the name Students' Housing Service.

(b) *Placement.* The placement officer (N.E.S.) and the Director work in close co-operation. The need for the development of a student personnel record is under study.

(c) *Health.* The infirmary notices keep the Director informed of student illness. Infirmary visitation, usually once a week, has been possible. Where health has been a factor in a given situation, the Student Medical Services have been most helpful.

(d) *Student Veterans.* The Director has continued in his role as Adviser to Veterans to maintain liaison with the Department of Veteran Affairs. A few figures of general interest are appended.

Research

A healthy university department must combine research with teaching. Counselling is teaching. To be effective it must be based on a continuous appraisal of local data, upon the research of others, and upon the research of members of the counselling staff. This is a statement of aim, at present. But the aim should not be lost sight of.

Conclusion

A student advisory service must always keep the entire University in view. Liaison with other departments, with faculties, with student officials, and with the administration must be constantly maintained. The Committee on Student Advisory Services which assists the Director with the Development of policy has been of great assistance this year. One cannot close this report without expressing real appreciation for the forbearance and helpfulness of members of the Committee in particular, and of the Administration as a whole.

Appendix

The following figures concerning veterans on allowances are taken from the minutes of the meeting of the Canadian Advisory Committee on University Training for Veterans, Feb. 1951.

At the University of Alberta 974 veterans wrote finals in May, 1950. Of these 94% either graduated or entered upon the next session without condition. Another 3% proceeded with one condition.

There were 481 student veterans attending the University in 1950-51. Of these 42 were doing graduate work.

Throughout Canada, the total university enrolment was 61,600 in 1950-51. Of these 7,900 were veterans, and about 4,000 expected to graduate this year.

In all, Canadian colleges and universities will have graduated about 40,000 veterans. It should be noted that without these graduates the national defence program would have been seriously hampered.

Report of the Chairman of the Committee on Physical Education, Dr. P. S. Warren

The Department of Physical Education reports a strenuous year which covers work on the service program for first year students, intramural sports program for senior students and University athletic clubs for all students.

Service Program

The service program for first year students covered a registration of 392 men and 133 women. An increase in this number is not expected in the future.

Intramural Program

The activities of the intramural program included eleven different sports which showed a registration of 1,482 men and 240 women. This was a slight increase from last year and more sports would have been included if there had been more room available. This number cannot be increased without greater facilities. This program is handled entirely by the Department of Physical Education.

Extramural Athletics

Extramural athletics are handled by the University Athletic Board and provide inter-university competition. Twelve different sports are open to competition. A large percentage of the coaching of the University teams falls on the shoulders of the members of the Department of Physical Education. It is the wish of the department that all coaching should be done by members of the staff, but this cannot be arranged as yet.

The work of the University Athletic Board, in arranging inter-university competition and otherwise managing or advising the handling of the moneys obtained from students' athletic fees, is more and more falling on the shoulders of the members of the Department of Physical Education. The average student members of the Board rarely have the necessary ability to handle these matters. Election of the student members of the Board is not usually based on their administrative ability. Student members appear to be getting younger and less capable in recent years. Arrangements for inter-university competition by University Athletic Boards is done practically altogether by members of the Physical Education departments.

Bachelor of Education in Physical Education

The degree of Bachelor of Education in Physical Education was introduced for the first time during the 1950-51 session. The first two years of the four-year course were offered during the current session, with the third and fourth years to be added the next two years.

Registrations for this course were as follows:

	Men	Women
1st year	12	6
2nd year	8	5

It is anticipated that the average class for the next several years will total twenty-four students with a ratio of five to three in favor of male students.

Fifteen students now majoring in Physical Education have been placed in recreational positions for the summer. These jobs consist of directors of recreation in parks, managers of swimming pools, life guards and playground supervisors.

Staff

Within the past year Mr. Van Vliet completed the Doctor of Education degree at the University of California, Los Angeles. Mr. Eriksson will have completed all the course requirements for the Doctor's Degree by September of 1951 and will begin writing his dissertation. Mr. McLachlin will continue work towards the Master's Degree at the University of Washington during the 1951 Summer Session.

The new curriculum for physical education, grades one to six, for the Province of Alberta will be published in May 1951. Mr. Van Vliet chaired the committee which completed this new program of study, and Mr. Eriksson, Mr. Smith and Miss Austin served as members of the committee. The Provincial Department of Education has recently appointed Mr. Van Vliet chairman of the committee to rewrite the physical education curriculum for grades seven to nine.

It is of interest to note that Miss Elaine Fildes has been appointed one of three leaders to accompany a group of fifty girls touring England, Scotland and Wales under the auspices of Mr. Garfield Weston and through the co-operation of The Canadian Education Association. Miss Austin will leave Canada July 13th and return August 21st.

Report of the Director of Student Medical Services, Dr. J. W. Scott

The session 1950-51 was a normal one so far as student illness was concerned. No major epidemics of a serious nature created any problem. We had a minor epidemic of influenza early in the new year. However, it did not create any severe degree of disability among the student population.

The activities of the Student Medical Services centered largely around the University Infirmary. The work here is largely of an out-patient nature and during the academic year there were 3,773 consultations at the Infirmary.

Dr. J. F. Elliott, with the assistance of Dr. M. M. Cantor and Dr. M. M. Hutton, has carried out the professional medical work at the Infirmary very efficiently. The nursing activities have been carried out under the efficient supervision of Miss A. Revell.

Freshmen examinations were carried out on all new students and X-rays of their chests were done. In addition Dr. J. F. Elliott has carried out a program of immunization with B.C.G. against tuberculosis among medical students and B.Sc. nurses. This, we hope, will decrease the rather alarming incidence of tuberculosis in these two groups.

The need for expansion at the Infirmary, particularly with regard to waiting room space, is an urgent problem which we hope will be solved in the near future.

Report of the Radio Secretary, Miss Margery W. MacKenzie

The University of Alberta has continued to utilize approximately the same amount of broadcast time over CKUA this year as in the past several years. Of the three hours a day, five days a week, of broadcast time presently allotted to it, one hour a day, a noon music hour, has been left for the present in the hands of the CKUA staff. Of the other two hours a day, one hour in the early evening has been devoted to good music. The other hour has included programs dealing with world affairs, science, literature, household economics, agriculture, educational research, adult education, drama, music, and children's entertainment. All but three of these have been presented in the early evening.

During the University term members of the University of Alberta faculty have assumed responsibility for the broadcast of ten regular program series, involving 190 programs of 15 or 30 minutes duration and totalling more than 50 hours of broadcasting. In addition to these, two series, the Music Hour, with five hour-long broadcasts a week, and the Alberta Farm and Home Forum, with three 15-minute broadcasts a week, continue throughout the entire twelve months of the year. These two programs constitute an additional 300 hours of broadcasting in the year.

The broadcasting of the University programs has been from the campus studios. Operation of controls and announcing for the evening programs has been handled during the University term by three students under the direction of the Radio Secretary. Daytime programs have been handled by the Radio Secretary and her assistant in Radio Service.

As a convenience to broadcasters, 145 programs were transcribed this year in the University studios, and were presented as recorded programs. Approximately 75 transcribed talks and discussions, after presentation over CKUA, were forwarded to Radio Station CFYT in Dawson, Y.T., for rebroadcast. These transcriptions, forwarded at the request of the Station, were circulated among several other 100-watt stations in the far north.

University programs were publicized this year, for the second successive year, by means of printed program schedules, "The University of Alberta on the Air". Five of these were distributed to cover the winter programs and three to cover the summer programs. Obtainable on request, these program guides have been requested by listeners in all parts of Alberta as well as in western Saskatchewan and north-eastern British Columbia. Two thousand copies of each program schedule have been distributed.

Following are the program series presented by the University of Alberta during the 1950-51 year. Except where otherwise stated the programs were of 15-minute duration.

Alberta Farm and Home Forum

Conveners: E. B. Swindlehurst, S. O. Hillerud. 150 programs.

Presented jointly by the Provincial Department of Agriculture and the University of Alberta, these forums are broadcast three times a week, throughout the entire year.

Behind the Headlines

Convener: G. Samuel. 22 programs.

Members of the University faculty contributed talks to this series of programs dealing with current national and international problems.

Books at Random

Convener: F. Macleod. 22 programs.

For these programs members of the staffs of the University Library and the University Extension Library reviewed books of a widely varied nature, obtainable by out-of-town borrowers from the University Extension Library.

The Chimney Corner

Convener: J. T. Jones. 22 programs.

Comprising selected readings from good books, this series was presented by

faculty members of the Department of English with the assistance of several outside readers.

Curtain Going Up

Convener: M. W. MacKenzie. 12 programs.

Recordings of scenes from plays of Shakespeare as performed by notable actors made up the majority of these programs.

Faculty of Education Series

Convener: B. E. Walker. 22 programs.

Talks on various educational problems as well as a series dealing with famous educators were included.

Music Hour

Convener: M. W. MacKenzie. 260 (1 hour) programs.

Presented from 7 to 8 in the evening, Monday through Friday throughout the entire year, these programs feature recorded chamber music, choral and solo instrumental music, opera and symphony on the first four programs of the week. The Friday evening program takes the form of a Listeners' Request Concert.

Western Board of Music

Convener: A. Crighton. 9 (½ hour) programs.

Presented by nine Edmonton musicians and teachers, these programs illustrated music from the piano, violin and 'cello syllabus of the Western Board of Music.

Why Stop Learning?

Convener: D. D. Campbell. 22 programs.

This series outlined the work done by the University's Department of Extension. It included two panel discussions, one dealing with community art in Alberta, and the other with the University Studio Theatre.

Wonder Box

Convener: M. A. Caldwell. 22 programs.

Radio adaptations of fairy tales presented by students of the Faculty of Education under faculty direction interspersed with stories for children read by faculty members made up this series.

World of Science

Convener: D. B. Scott. 9 programs.

These programs offered glimpses into many of the fields of scientific endeavor with which the University is concerned.

Your Home and You

Convener: M. Patrick. 22 programs.

Dealing with many problems facing the home-maker, this series presented by the Department of Household Economics furnished women throughout Northern and Central Alberta with much valuable information.

Canadian Federation of Artists Series

Convener: H. G. Glyde. 3 (½ hour) programs.

With the co-operation of the Department of Extension the convener arranged this special series of three panel discussions dealing with landscape painting,

ceramics and silk screen reproduction. They were presented by Edmonton members of the Canadian Federation of Artists.

Student Programs

Through its own initiative and with the assistance of the staffs of Radio Service and CKUA, the Student Radio Society has continued to provide training and experience in the various radio techniques. Throughout the University term all Thursday evening programs broadcast over CKUA, with the exception of the Music Hour and the various news bulletins, have been arranged and presented by members of the Radio Society. The privilege granted to the students of operating controls and producing programs from both the campus studios and the studios of CKUA afforded them invaluable training. Program series included: Green and Gold Sports, Piece of Mind, On Wings of Song, Varsity Varieties, Champs—or Chumps? and Critical Comment.

Report of the Secretary, Western Board of Music in Alberta, Professor R. S. Eaton

The activities of the Western Board of Music continued to expand during the above period, reflecting the steady growth which has been experienced in the past few years. It is interesting to note the increase in numbers of candidates sitting for the Diploma and other senior examinations.

Examination Statistics

1. *Candidates*

	Practical	Theoretical	Total
February, 1951	75	206	281
*May, 1951		291	291
*June, 1951	674	.....	674
	<hr/> 749	<hr/> 497	<hr/> 1246

*Incomplete totals, compiled April 18, 1951.

2. *Centres*

(a) *Practical*

February, 1951—Edmonton, Calgary, Sundre, Innisfail, Pincher Creek.

June, 1951—as of April 18, 22 centres including Bonnyville, Calgary, Castor, Drumheller, Coleman, Edmonton, Falher, Fort Kent, Girouxville, Glendon, Grande Prairie, Innisfail, Lacombe, Lethbridge, McLennan, Mannville, Peace River, Pincher Creek, Red Deer, Rycroft, St. Paul, Spirit River.

(b) *Theoretical*

February, 1951—29 centres throughout the province.

May, 1951—36 centres throughout the province.

3. *Examiners*—Mr. Burton Kurth and Mr. Glenn Nelson, Vancouver; Mr. John Waterhouse, Winnipeg; Mrs. Dorothy Swetnam Hare and Mr. Leonard Leacock, Calgary; Mrs. Beulah Doney, Mr. E. A. Moore, Mr. A. B. Crighton and Mr. R. S. Eaton, Edmonton.

4. *Diplomas Granted*

Fall Convocation, 1950—Licentiate: Catherine Morrison, Stettler, Monica Engle, Calgary, Geraldine Mason, Edmonton, Pianoforte; Ruth Gillis, Edmonton, Singing.

Associate: Donna Diaper, Calgary, Mary Vaughan, Faust, Violin; Barbara Draper, Calgary, Violoncello; Donna Parker, Rosebud, Rosemary Holsworth, Benalto, Levis Brodeur, Edmonton, Allan Boomer, Edmonton, Zonia Thachuk, Edmonton, Pianoforte.

Broadcasts—Nine programmes illustrating pieces from the Western Board syllabus were presented over Radio Station CKUA. A discussion of the Associate Diploma and of examination problems was included in two of the broadcasts. We are again most grateful to the Edmonton teachers who prepared and took part in these programmes.

Recitals—Successful presentations of awards at regional recitals were held during October and November in six centres: Glendon, Peace River, Red Deer, Lethbridge, Calgary, and Edmonton. At the expense of the Western Board, several young artists from Calgary and Edmonton visited these centres to take part in the programmes as guest artists. They contributed much to the success of the recitals, and themselves received valuable experience in giving public performances.

Scholarships, Bursaries, Prizes—More than \$4,500 was awarded in the form of scholarships, bursaries, and prizes to outstanding candidates. The Western Board wishes to express its appreciation to the welfare organizations, service groups, corporations, business men and private individuals who continue to make these awards possible.

A significant contribution to music in the province was the granting, for the third consecutive year, of ten bursaries of \$100 each by the Government of Alberta.

The Gold Medal offered by the Board of Governors to the candidate receiving the highest standing in completing the final examination of the A.Mus. (Alberta) was awarded to Miss Barbara Draper of Calgary. Twenty-nine silver medals were presented.

Advisory Service—An ever-increasing amount of time is being devoted to assisting teachers, especially those in rural areas, with various examination problems. We are pleased to note that more and more teachers are turning to the University for assistance in these matters.

Report of the Acting Commanding Officer of the Alberta Contingent of the Canadian Officers' Training Corps, Lt.-Col. H. J. Bishop

The officers of the Contingent for the academic year were:

Commanding Officer—Lt. Col. D. M. Healy, MBE (on leave of absence).

Acting Commanding Officer—Lt. Col. H. J. Bishop.

Contingent Officers—Capt. C. W. Reed, Capt. J. P. Jorgensen.

Resident Staff Officer—Major J. E. Pincock.

Eighty-eight Officer Cadets were on strength of the Contingent at the beginning of the year; of these fifty-seven continued their theoretical training, the remainder were struck off strength for the following reasons:

Seven were commissioned as Second Lieutenants Canadian Army (Active Force); nine qualified and were appointed to the rank of Lieutenant in the Canadian Army (Reserve Force); fourteen qualified and were appointed to the rank of Lieutenant in the Canadian Army (Supplementary Reserve); one failed Practical Phase training.

At the end of this academic year, the number of Officer Cadets qualified for commissions but not returning to Corps Schools for further training were five, qualified in the rank of Lieutenant.

Therefore, of the fifty-seven members of the Contingent, fifty-two will again attend summer camps for further training.

In April, forty-four new members were taken on strength and assigned to various Corps in the Army for training. In all then, ninety-six Officer Cadets of the Contingent will be undergoing practical phase training during the summer of 1951.

In September, 1950, the Commanding Officer, Lt. Col. D. M. Healy, MBE, was granted a year's leave of absence and Major H. J. Bishop was appointed Acting Commanding Officer and promoted to the rank of Lieutenant Colonel.

Capt. J. K. Heath, NC, proceeded on Active Service with the 2nd Field Regiment, RCHA, in the Canadian Army (Special Force) and in October, 1950, he was replaced by Capt. G. W. Reed of the Faculty of Law.

The Adjutant of the Contingent, Lt. J. P. Jorgensen, was promoted to the rank of Captain in October, 1950.

During the theoretical phase of training this year lectures were given to the third year Officer Cadets by Faculty members of the University as follows: Military History, Dr. D. E. Smith; Military Geography, Dr. P. S. Warren; Prof. L. H. Nichols; Dr. R. E. Folinsbee, and Prof. L. E. Gads.

This year the Officer Cadets of the Contingent together with the Flight Cadets of the Reserve University Flight RCAF made full use of their well appointed Lounge in the University Drill Hall. Several informal social functions took place in this Lounge, which were well attended and enjoyed by the members and their guests of both Service units of the University.

Report of the Commanding Officer of the University Naval Training Division, Lieut. R. E. Phillips

Early in April of 1950, thirty-nine Cadets were drafted to the Reserve Training Establishment at Esquimalt for Summer Training. During the course of the summer, four of the first year Cadets failed to meet requirements and were discharged as unsuitable for further training.

The response to the Fall recruiting campaign was not too good. Twenty-one candidates came before a Selection Board composed of four R.C.N. officers, two faculty members and the Commanding Officer U.N.T.D. Fifteen of the candidates passed the Board and were promoted to Cadet R.C.N.(R). The number of Cadets on strength at present is thirty-eight. This is two below the quota set by Naval Headquarters. All winter training has been carried out by Reserve and Active Force instructors.

Two Cadets will be graduating from University in May, 1951, and will be promoted at that time. One will become a Sub-Lieutenant in the Electrical Branch and the other a Sub-Lieutenant in the Supply Branch.

Two Cadets who graduated in May 1950 joined the Royal Canadian Navy during the early summer.

On February 1, 1951, Naval Headquarters appointed a R.C.N. Officer to the UNTD, University of Alberta, as a full time Staff Officer. He has been of great assistance in keeping routine matters accounted for during the past two months. It is hoped that a similar appointment will be made in the Fall of 1951.

Thirty-four Cadets will be taking training at the West Coast this summer. Present plans call for five-week training cruises. One Cadet, a Law student, will take training in the Legal Branch in Ottawa.

New instructions have abolished the procedure of entering first year students in the UNTD as Ordinary Seamen. All new entries will be taken on strength as

Probationary Cadets for four months. At the end of this time, they will come before a Selection Board, and on passing this Board, this rank will be confirmed.

In the Fall of 1950, Naval Headquarters instituted a plan called "Naval Assistance for University Students". In this plan, final year University Students from any Faculty will be accepted for a career in the Royal Canadian Navy. They hold the rank of Acting/Sub-Lieutenant and receive full pay and allowances until graduation when they are confirmed in that rank. Previous service requirements restricted the intake during 1950-51, but a new plan will likely come forward for 1951-52. One fourth-year Electrical Engineering student is at present completing his course under this arrangement. The plan is not restricted to Cadets in the UNTD.

Report of the Commanding Officer of the RCAF University Flight, Squadron Leader L. E. Gads

Following the conclusion of the university session of 1949-50, flight cadets from this unit were posted as follows: 29 first year cadets proceeded to the officers' indoctrination course at London, Ontario; 7 to Armament course, Trenton, Ont.; 3 to Telecommunications course, Clinton, Ont.; 2 to Aeronautical Engineering, Camp Borden; 1 to Photo course, Rockcliffe, Ont.; 1 to Contact training, NWAC HQ.; 1 to Contact training, Suffield Experimental Station; 1 to Navigation course, Summerside, P.E.I.; 7 to Pilot training, Centralia, Ont.; and 6 granted leave of absence for personal reasons.

At the 8-week indoctrination course at London, Ont., 250 cadets from 9 universities from B.C. to P.Q. completed their initial training and were posted to various schools for specialized instruction. This indoctrination course was described in a special report submitted earlier. One of the main benefits derived by the trainee was the opportunity of meeting students from 9 different universities.

F/L J. Woods replaced F/L J. Gillmore as the Resident Staff Officer and F/L A. Crighton, Dept. of Music, replaced F/L B. Riedel as the Adjutant of the Unit. The post of RCAF Liaison Officer, held by S/L L. E. Gads since 1948, was abolished this spring and the work is now handled by the Unit as such. It consists mainly of liaison with RCAF HQ. in Ottawa and handling of documents of personnel who are attending the University but who are not on the strength of the flight.

The recruiting drive in the fall of 1950 was quite successful, as there was about a dozen applicants more than the required quota of 35 cadets. This permitted the selection board to eliminate doubtful candidates. The present strength of the unit is as follows: 31 first year cadets, 23 second year cadets, 13 third year cadets. There were several resignations this spring from all three sections, main reasons being the opportunities for employment in civilian fields and the necessity of making as much money as possible during the summer holidays because of increased costs.

The joint COTC-RCAF Lounge was very successfully operated by an elected committee representing both the army and the air force cadets. The importance of such accommodation to the success of the scheme became quite evident. A large number of magazines were available and cadets made use of the lounge for social purposes during major university dances and on Sundays, when moving pictures were shown. Some of the winter lectures were given in the lounge and in the lecture room in the Drill Hall but lectures were mainly given in the regular

lecture room in the Arts building. With three flights on hand, this made it easier to handle three lectures at once.

Winter training consisted of lectures given by staff officers of the Unit, visiting lecturers supplied by the RCAF and guest lecturers from the staff of the University. Films were used extensively in the training programme.

Plans are now complete for an indoctrination course at RMC Kingston, Ont. Nine universities will again be represented, plus new officer-cadets entering the regular air force for the first time. Five hundred cadets are expected to attend the course and reserve personnel from all universities concerned are asked to participate in the instructional staff.

S/L Gads, F/L Crighton and F/L Woods are reporting at Kingston to assist in teaching duties.

Report of the Director of the Department of Extension, Mr. Donald Cameron

Statistical Survey

Lectures

University Teaching staff	1,131	
Department of Extension staff	288	
	—	1,359
Aggregate attendance		101,853
Number of radio talks:		
Extension staff	48	
Teaching staff	223	
	—	271
Conferences and short courses, Table XIII		4,139

Visual Instruction

Number of sets of standard slides sent out	91	
Number of 2x2 slides sets sent out	446	
Number of times slides were used	518	
Total audiences viewing slides		24,062
Sets of filmstrips sent out	1,344	
Individual filmstrips sent out	2,848	
Number of times filmstrips were shown	1,901	
Total audiences viewing filmstrips		76,210
Number of lanterns loaned	65	
Number of filmstrip and 2x2 projectors loaned	77	
Sets of sound films sent out	3,711	
Sets of silent film sent out	288	
Number of reels of sound films sent out	15,943	
Total sets of moving picture films sent out	3,999	
Total number of reels of moving picture films sent out	16,896	
Total number of showings of films, sound and silent	5,560	
Total audiences viewing films, sound and silent		521,130
Number of times projection service supplied	407	
Branch Library film showings	2,416	
Number of reels sent out from branch libraries	8,644	
Aggregate attendance at film showings from branch libraries		182,328

Library and Debating Service

Number of travelling libraries in use	90	
Number of times sent out:		
Regular libraries	200	
Special libraries	238	
Recorded circulation		23,901

Open Shelf Circulation

Books:

Adult	40,778	
Juvenile	11,022	
Banff School	7,164	
Plays	2,626	
Periodicals and pamphlets	3,700	
	<hr/>	65,290
Number of package libraries for debaters sent out		75

Study Group Material

Number of sets of Citizens' Forum Bulletins sent out (weekly)	150	
Total number of study bulletins sent out		2,500
Number of sets of other study group material sent out		26

New Canadian Plays and Soil Mechanics

Number of copies of New Canadian plays sold	415	
Number of copies of Proceedings of Soil Mechanics and Concrete sold		44

Publications

Press Bulletin, Seasonal Notes	10,000	
Press Bulletin, Feeders' Day Program	4,000	
	<hr/>	14,000
Agricultural bulletins sent out during year	28,759	
Mimeos, circulars and other bulletins sent out	500	
	<hr/>	29,259
Total number of bulletins distributed since inception of service	524,558	
University News Letter:		
Number of issues	11	
Circulation, 11x200		2,200
The New Trail—number sent out		15,900

Extension Work in Oil Industry

Number of drilling rigs	29	
Number of conferences held	177	
Number of crew members, supervisors, etc., attending conferences	450	

Recapitulation

Total aggregate attendance at lectures, conferences, schools and short courses, lantern slide lectures, filmstrip programs, moving pictures, Circulating film exchange, oil conferences	910,172
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Total circulation of travelling library books, Open Shelf, package libraries for debaters, Citizens' Forum Bulletins, sets study group material, New Canadian Plays, Proceedings Soil Mechanics and Concrete	92,251
Total circulation of Press Bulletins, Agricultural Publications, News Letter, New Trail	61,359

Conclusion

This thirty-eighth Annual Report on University Extension Activities* brings to an end a year of record achievement. In one way or another the University has been of some service to an aggregate of over 1,000,000 people. That service has reached into communities from Milk River in the south to Aklavik in the north, and hundreds of points in between.

More significant, however, than the extensive geographic distribution of the service is the marked increase in the number of people who have participated in short courses of substantial educational content and duration. This is a trend that is likely to continue.

Of especial significance is the increasing tendency of business and industry to come to the University for assistance and co-operation in working out their special problems. This is a healthy and mutually beneficial development.

The University's role in the academic and professional fields has long been accepted as basic to the general welfare of the whole community. In this Province it is also a matter of pride that the University has recognized and attempted to meet a responsibility extending far beyond the academic and professional fields. Through its extension services, it is intimately associated with the economic, the social and the cultural development of hundreds of communities which otherwise would have little connection with or interest in the University. As a result of this intercommunication the University and the community are both enriched and strengthened.

*The complete Annual Report on Extension Activities of the University of Alberta for the year ended March 31, 1951, which includes a report on the 1950 session of the Banff School of Fine Arts, is available in printed form.

Table XIII.—Short Courses, Classes and Conferences Arranged and Organized by the Department of Extension

Course, Class, Conference	Sponsored by	Held at	Dates	Duration	Attendance
1. Community Art Class	Devon Art Club	Devon	Feb. 8-May 10	14 wkly. lects.	15
2. "	Medicine Hat Art Club	Medicine Hat	Oct. 20-Apr. 14	23 "	30
3. "	Brooks Sketch Club	Brooks	Oct. 19-Apr. 12	24 "	15
4. "	Lacombe Art Club	Lacombe	Oct. 18-Apr. 18	25 "	25
5. "	Stettler	Stettler	Oct. 31-Apr. 10	22 "	25
6. "	Wetaskiwin Art Club	Wetaskiwin	Nov. 10-Apr. 6	21 "	15
7. "	Camrose Art Club	Camrose	Oct. 17-Apr. 17	25 "	30
8. "	Vegreville Art Club	Vegreville	Oct. 13-Apr. 13	26 "	20
9. "	Mannville Art Club	Mannville	Nov. 3-Apr. 20	24 "	20
10. "	Viking Art Club	Viking	Oct. 18-Apr. 18	25 "	20
11. "	Jasper Art Club	Jasper	Oct. 21-Apr. 14	23 "	30
12. "	Red Deer Art Club	Red Deer	Oct. 19-Apr. 19	26 "	30
13. Life Drawing and Painting	Department of Fine Arts	Edmonton	Oct. 16-Apr. 23	23 "	10
14. Portrait and Life Drawing	"	"	"	23 "	21
15. Composition	"	"	"	23 "	52
16. Advanced Life Painting	"	"	"	23 "	10
17. Pictorial Design and Tech.	"	"	"	23 "	5
18. Anatomy	"	"	"	23 "	4
19. University Women's Club	"	"	"	23 "	7
20. Pictorial Comp. and Tech.	"	"	"	23 "	8
21. Comp. in Water Color	"	"	"	23 "	6
22. Portrait and Life Drawing	"	"	"	23 "	26
23. Composition	"	"	"	23 "	39
24. Still Life-Water Color	"	"	"	23 "	19
25. Theory of Color	"	"	"	23 "	4
26. Portrait and Life Drawing	"	"	"	23 "	7
27. Silk Screen Theory and Practice	"	"	"	23 "	7
28. Choral Leadership	Department of Extension	"	Jan. 22-Mar. 26	10 "	42
29. Commercial Law	"	"	Jan. 22-Mar. 26	10 "	136
30. Can. Econ. Problems and Policy	"	"	Jan. 23-Mar. 27	10 "	31
31. Interior Decoration	"	"	Jan. 23-Mar. 27	10 "	269
32. Conversational French	"	"	Jan. 24-Mar. 28	10 "	39
33. Canada and the World	"	"	Jan. 24-Mar. 28	10 "	51
34. Landscaping the Small Lot	"	"	Jan. 25-Mar. 29	10 "	97
35. Teen Ageds and Their Problems	"	"	Jan. 25-Mar. 29	10 "	17
36. Art History and Appreciation	"	"	Jan. 26-Mar. 30	10 "	20
37. Music Appreciation	"	"	Jan. 26-Mar. 30	10 "	54
38. Personnel Testing Methods	Department of Psychology and Ed- monton, Personnel Association	"	Jan. 9-Mar. 13	10 "	25
39. Accounting I	Reg. Institute of Indust. Accountants	"	Oct. 9-Mar. 30	20 "	19
40. Fund. of Cost Accounting	"	"	"	20 "	23
41. Ind. Org. and Management	"	"	"	20 "	15

Table XIII—Continued

Course, Class, Conference	Sponsored by	Held at	Dates	Duration	Attendance
42. Mathematics	Reg. Inst. of Indust. Accountants	Edmonton	Oct. 9-Mar. 30	20 "	19
43. Accounting I	"	Calgary	"	"	20
44. Fund. of Cost Accounting	"	"	"	"	40
45. Ind. Org. and Management	"	"	"	"	20
46. Mathematics	"	"	"	"	14
47. 6th Annual Refresher Course in Sanitary Inspection	Alta. Public Health Assoc., Faculty of Agric., and Dept. of Extension	Edmonton	Apr. 17-21	20 "	8
48. 12th Refresher Course in Municipal Administration	Sec.-Treas. and Dept. of Mun. Affairs	Banff	May 24-27	5 days	29
49. Recreational Leadership	Health and Recreation Branch, Dept. of Phys. Ed. and Rec. Commission	Edmonton	May 22-June 10	4 days	26
50. Third Mud School	*C.A.O.D.C.	"	May 29-June 9	20 days	63
51. Oil Treating School	Western Can. Petroleum Assoc.	"	June 12-23	12 days	33
52. Management Institute	*C.A.O.D.C.	Calgary	June 23-24	12 days	59
53. Fourth Mud School	*C.A.O.D.C.	Edmonton	June 12-23	2 days	33
54. Gas Metering School	Dept. of Petroleum and Chemical Engineering	Edmonton	Aug. 21-Sept. 1	12 days	36
55. Short Course for Small Libraries	Alta. Library Association and Dept. of Extension	"	May 30-June 2	12 days	28
56. 32nd Annual Farm Young People's Week	Faculty of Agriculture	Edmonton	June 2-9	4 days	27
57. 6th School Administration	School of Household Economics	"	June 6-8	8 days	23
58. Community Life Conference	Alberta School Trustees	"	July 5-9	3 days	200
59. "	Div. Sec.-Treas. and Dept. of Educ.	Beaverlodge	July 12-16	5 days	96
60. "	Dept. of Ext. and Community Centres	Bear Lake	July 19-23	5 days	88
61. Rural Leadership Course	Dept. of Extension, U.G.G., F.U.A., and Wheat Pool	Gooseberry Lake	Oct. 25-Nov. 2	9 days	90
62. Forest Conservation	Dept. of Resources and Development	"	Oct. 30-Nov. 18	5 days	100
63. Wildlife Management	Dept. of Zoology	"	Nov. 20-Dec. 10	9 days	20
64. Fishery Management	School of Nursing and Faculty of Medicine	Edmonton	Dec. 14-16	3 weeks	19
65. Improving Nursing Care	Ed. Paint Club, Can. Paint, Varnish, Lacquer Association	"	Jan. 15-26	3 days	18
66. Paint Power	Dept. of Extension	"	Jan. 27-Feb. 24	4 weeks	10
67. Banff School of Fine Arts	School of Nursing, Faculty of Medicine, Alberta Assoc. of Reg. Nurses	Banff	July 11-Aug. 19	5 wkly. lects.	197
68. Nursing Service Personnel	School of Nursing	Edmonton	Mar. 19-23	6 weeks	70
69. Improving Nursing Care	Faculty of Medicine	Lethbridge	Feb. 15-17	5 days	488
				3 days	78
					68

70. Drama Workshop	Young Adults Drama Club	Sedgewick	Nov. 29-Dec. 1	3 days	15
71. " "	" "	Didsbury	Apr. 18-19	2 days	15
72. " "	Elnora Drama Club	Elnora	Feb. 26-Mar. 2	5 days	15
73. Film Workshop	Dept. of Extension, N.F.B. and Hanna Film Council	Hanna	Oct. 29	1 day	60
74. Film Workshop	Dept. of Extension, N.F.B. and Olds Film Council	Olds	Nov. 3	1 day	25
75. " "	Dept. of Extension, N.F.B. and McNally Film Council	McNally	Nov. 17	1 day	200
76. " "	Dept. of Extension, N.F.B. and Crowsnest Film Council	Blairmore	Nov. 16	1 day	57
77. " "	Dept. of Extension, N.F.B. and Foremost Area Film Council	Foremost	Nov. 18	1 day	80
78. " "	Dept. of Extension, N.F.B. and Big Valley H. & S. Association	Big Valley	Nov. 28	1 day	160
79. Preliminary Art Course	Dept. of Extension	Banff	June 26-July 9	12 days	41
80. Conversational English	" "	Edmonton	Feb. 16-April 18	10 wkly. lects.	6
81. Music Appreciation	" "	Lacombe	Mar. 13-May 15	10 "	31
82. Public Speaking	" "	Edmonton	Feb. 26-Mar. 30	10 "	12
83. Short Course for Purchasing Agents	Purchasing Agents Association of Edmonton	Edmonton	Mar. 12-Apr. 16	5 "	64
84. Leathercraft	Dept. of Extension	Banff	Nov. 15-Mar. 30	20 "	8
85. Weaving	" "	Banff	" "	20 "	9
86. Agricultural Short Course	Imperial Oil Ltd.	Edmonton	Feb. 5-7	3 days	23

*Canadian Association of Oilwell Drilling Contractors.

Report of the Director of the Provincial Laboratory of Public Health, Dr. R. D. Stuart

The year 1950 saw an important number of important changes: the retirement of Dr. Shaw; the opening of the Southern Branch of the Provincial Laboratory in Calgary; the transference of this Laboratory to its new quarters.

Retiring Director

Dr. R. M. Shaw joined the staff of the Provincial Laboratory in September, 1920, and succeeded Dr. A. C. Rankin as Director in September, 1945. Throughout his long association with the Laboratory he devoted his energies to it in an entirely selfless manner and every credit should be given to his efforts, both as Director and in association with Dr. Rankin, for the rapid development of the Laboratory services in this Province. He possessed the rare and fortunate quality of inspiring respect and devotion in his staff. Indeed, he could scarcely otherwise have maintained the efficiency of the Laboratory with the ever-increasing handicap of lack of space and facilities under which it laboured for so many years.

Southern Branch of the Provincial Laboratory in Calgary

The opening of this Branch Laboratory on January 3rd, 1950, marked the first significant development in the extension of laboratory facilities in the Province. Its location will lessen the difficulty in the transport of material from the southern part of the Province, and will obviate the serious delay in the receipts of reports due to the distance previously involved. The Laboratory has been fortunate in securing the services of Dr. Shute, an exceptionally well-trained and highly competent clinical pathologist, to direct its varied activities. As will be seen from his accompanying report, the services of the Laboratory are in ever-increasing demand by the practitioners of the area. This is particularly evident in the continued monthly increase in the number of tissue specimens sent for pathological histology examination and in the number of bloods for the diagnosis of syphilis. A total of 49,860 examinations were carried out during the year.

The New Provincial Laboratory

The new Provincial Laboratory was occupied in December of this year, after a considerable and unfortunate delay due to unforeseen architectural difficulties. That the transference of materials, equipment, and staff at this difficult time of year was achieved without any interruption in service must be credited to the high sense of duty and to the exceptional efforts of the technical staff, who personally carried over all the current specimens and materials and continued working on them under the most unusual conditions. The late period of the year and the climatic conditions made it impossible to transfer the animals, used for diagnostic and experimental work, to their new quarters at the same time. This will entail considerable difficulty for some time, but it is hoped that the transference will be completed as early in 1951 as weather permits. The new Institute is substantially built of brick and concrete, and its elaborate air-conditioning system is expected to provide reasonable working conditions. As yet it is too early to comment on the functional suitability of the laboratories, but the relief from the appalling congestion of the old quarters is commented on by everyone concerned. One obvious matter of immediate urgency, however, is the construction of a hard surface roadway by which the building may be approached.

Laboratory Services

Bacteriological—The number of examinations completed during the year amounted to 142,268, an over-all decrease of 31,238 from the preceding year. It is very evident that this decrease is due mainly to the transference of examinations from the southern part of the Province to the new Laboratory in Calgary. For instance, in syphilis serology alone the decrease amounted to 27,560 examinations, whereas the number of such examinations recorded from the Calgary Laboratory amounted to 29,903. Consequently, it is more fitting to point out that the total of Laboratory examinations carried out in the Province showed an increase of almost 19,000.

In addition to maintaining the standard and gradually extending the scope of what may be termed public health bacteriology, it is hoped that in its new quarters the Laboratory will be able to provide better service for individual diagnostic material derived mainly from hospitals. Significant in this type of examination is the increased number (1,075) of tests carried out on the antibiotic sensitivity of organisms. Indeed, it may be true that in relation to human disease, the function of the bacteriological laboratory may be more and more the determination of a suitable therapeutic agent than the absolute identification of the species of infecting micro-organism.

During the year the number of diagnosed cases of enteric fever and of *Salmonella* infections remained about average. One small epidemic of paratyphoid fever was encountered in Fort Smith, N.W.T. The infecting organism was *S. paratyphi B*, and thirteen cases were confirmed by laboratory investigation. The outbreak, according to our records, involved three families and a few isolated cases, and originated from river water contamination by sewage from a building a short distance upstream.

The investigation of gonococcal infections by cultural methods, for which 1,788 examinations were recorded in 1949, was not pursued during 1950. This is ascribable partly to the inherent difficulties in the procedure, especially in the satisfactory transport of material, and partly to the loss of a considerable number of experienced workers who could not be replaced immediately. This activity may be revived in 1951, and an exploration of the problems concerned is already under way.

Pathological—Gross and histological examinations of surgical specimens sent in from rural hospitals continued to form the major portion of the work done in the Department of Pathology. It is interesting to note that the number of specimens examined continues to increase year by year, in spite of the fact that the Southern Branch is now carrying on tissue examinations for districts south of Red Deer. Routine examination of tissue removed in surgical operations is well justified by the number of unsuspected and sometimes very early cancers which are disclosed.

Smear examination as a procedure for the diagnosis of cancer is growing in popularity, and specimens of bronchial secretions, cervical secretions, gastric washings, etc., were forwarded for examination in increasing numbers. This form of diagnosis may be regarded as an adjunct to other diagnostic methods, but will not supplant surgical biopsy as the method of choice.

Examinations of autopsy tissues forwarded by rural physicians are also increasing each year, and it is gratifying indeed to see the numbers of rural practitioners who find time to carry out their own autopsies in the midst of a busy practice.

Medico-legal examinations, Ascheim Zondek Tests, and Haematological examinations continued at about the same level as in previous years.

Mycological—The increasing importance of this section of the laboratory's activities deserves separate mention. The number of specimens examined, 356, may not appear significant compared with, say, the thousands of serological tests carried out in bacteriology, but each test indicates an investigation prolonged often over months and demands a very high degree of specialized knowledge and experience. Thus an increase of sixteen per cent over last year in the examinations carried out reveals an important development in the demand for this type of investigation. So far the diagnostic activities of this department have been supported largely through the courtesy of Dr. Keeping, working under a Federal Research Grant, but it seems evident that the increasing realization of the medical importance of fungal infections will soon demand a more formal organization to deal with it.

Staff and Equipment

In July, 1950, the staff of the Department of Pathology was augmented by the addition of Dr. Douglas Waugh, M.D., Ph.D. Dr. Waugh is a graduate of McGill University, and his fine training in diagnostic histology and morbid anatomy has made him a very valuable addition also to the staff of the Provincial Laboratory.

No other significant appointments were made during the year, but it must be pointed out that the separation of the new Provincial Laboratory from the Departments of Bacteriology and Pathology entails a certain duplication of activities, and consequently a number of technical workers previously carrying out work in both laboratories will have to be transferred wholly to the department chiefly requiring their services.

Only equipment routinely required was purchased during the year, but the installation of new sterilizing equipment in the present building has relieved the previous dangerous situation in which partially derelict sterilizers were carrying loads far above their capacity. A new tissue processing machine was bought for the Pathology Department. Such machines are expensive, but its essentiality for the increasing load of histological work is demonstrated by its constant daily use.

The separation of the new building from the Medical School must also be remembered in connection with future equipment required. Workers cannot carry heavy and expensive equipment backward and forward, and a certain duplication of such equipment will be inevitable.

Table XV.—Work Performed in the Provincial Laboratory, Southern Branch, Calgary, During the Year 1950

	Total 1949	Total 1950	Increase	Decrease
Sputum Examination	973	836	.....	137
Diphtheria and Haemolytic streptococci...	4,704	5,492	788	.....
Typhoid Fever (Agglutination Test)	2,118	1,896	.....	222
Milk	1,125	1,386	261	.....
Water	5,190	4,127	.....	1,063
Guinea pig inoculations	1,716	2,047	331	.....
Miscellaneous Bacteriology	7,057	7,465	408	.....
Blood Cultures	780	680	.....	100
Enterobacteria and Intestinal Parasites	1,079	2,928	1,849	.....
Urinalyses	16	25	9	.....
Medico-Legal (Blood, Seminal, etc.)	7	7	.....	.....
Cerebro-spinal fluids for the Wassermann Test	3,043	2,414	.....	629
Bloods for the Quantitative Kahn Test	2,845	1,639	.....	1,206
Bloods for the Wassermann Test	11,286	6,819	.....	4,467
Bloods for the Standard Kahn Test	10,903	6,748	.....	4,155
Bloods for the Presumptive Kahn Test	85,230	68,127	.....	17,103
Smears for Gonococcus	12,701	8,763	.....	3,938
Cultures for Gonococcus	1,788	1	.....	1,787
Van Den Bergh determinations	106	.....	.....	106
Pathological Histological material	11,340	10,363	.....	977
Blood Smear Examinations	159	88	.....	71
Post Mortem Examinations (Edmonton)	321	385	64	.....
Post Mortem Reports (outside points)	137	104	.....	33
Ascheim Zondek Tests	737	564	.....	173
Comparative Series	13	2	.....	11
Fluids for Cancer Cells	177	294	117	.....
Cancer Cytology	36	66	30	.....
Bone Marrows	40	51	11	.....
Cerebro-spinal fluid, examination (Colloidal Gold, Pandey)	3,426	3,331	.....	95
Bacteriological examinations (P.M.)	67	22	.....	45
B. abortus examinations (Agglutination Test)	2,118	1,860	.....	258
P. tularensis (Agglutination Test)	2,118	1,860	.....	258
B. melitensis (Agglutination Test) .....	.....	2	2	.....
Antibiotic sensitivities, etc.	*	1,374	1,374	.....
Mycological examinations	*	356	356	.....
Cattle Blood (Bang's disease Agglutination Test)	150	146	.....	4
Total	173,506	142,268	5,600	36,838

*Not recorded separately.

Report of the Director of the Provincial Laboratory of Public Health, Southern Branch, Dr. D. Shute

This first annual report on the work conducted at the Southern Branch, Provincial Laboratory, Calgary, is a summation of twelve monthly reports.

As the Southern Branch commenced operations on January 3rd, 1950, we have almost completed a full calendar year. From January to March, 1950, there was a rapid increase in the volume of work and for the succeeding nine months the work remained fairly steady with slight seasonal fluctuations. These variations appear to be related to the activities of a farming community (planting, harvesting,

etc.). In spite of the dispatch of a concise and simple letter to announce our opening to all physicians and hospitals in the Southern half of the Province, we still receive queries and requests which demonstrate that the letter was not read by many individuals.

This complete or partial ignorance of the Laboratory services offered in Calgary has considerably restricted our work, and this might be considered fortunate in that we have progressed smoothly through a difficult year without a major breakdown in any department.

It is possible that many more specimens will be received in 1951 as the knowledge of our existence slowly spreads to those who can benefit by the services offered.

Animal work is restricted at present by lack of cage space and some overcrowding of the present guinea pig population of about 285 pigs. New cages are on order and when available should enable a more rapid turnover of specimens for the isolation of Myco. tuberculosis in guinea pigs and the conducting of the greatly needed Friedman Pregnancy Test in rabbits.

There have been only four inadvertent deaths amongst the pigs (pneumonia in all cases) which speaks well for the good design of the cages, the suitability of the building provided as an animal house and the care of the animal attendant (Mr. W. Anderson).

It is hoped that accommodation for two sheep will be provided in the near future so that a ready supply of sheep's blood will be available to replace the risky mailing of sheep's red blood cells from Edmonton.

An increase of the work in connection with the control of Tuberculosis must be anticipated in the future following the work of the Mobile X-ray teams in their general survey of the population.

The numbers of milks and waters submitted for bacteriological examination have shown slight steady increases.

It was found necessary to be more rigid in the control of the techniques used for the examination of milks after complaints had been received from various dairies to the effect that the results did not demonstrate the true condition of their products. With the co-operation of the Sanitary Authorities iced milk samples now reach the Laboratory with a minimum delay of 30 minutes. The samples are then examined strictly according to the techniques prescribed in "Standard Methods for the Examination of Dairy Products", 9th Edition. The results of this more rapid delivery of the samples and their examination under more rigidly controlled conditions have been seen in the fall on the Official Plate Counts to more reasonable (although not yet satisfactory) levels.

The work of the Serology Department in connection with the diagnosis of syphilis has, from the onset, been one of our largest commitments and we have been assured by many physicians that this service has been greatly appreciated.

Similarly, the histological examination of biopsy and autopsy tissues has been of assistance to many practitioners in the southern half of the Province.

There have been no epidemic outbreaks of communicable diseases during the year so that the bacteriology staff has been occupied with routine investigations (urethral smears for Gonococci, throat swabs for diphtheria bacilli, etc.).

The Clinical Pathology conducted for the Central Alberta Sanatorium is unlikely to increase to any great extent as this work is naturally limited to the number of beds available for in-patients.

No major buildings projects are contemplated, but as the Laboratory was never completed by internal painting this will need to be done in the near future.

The technical equipment was very adequate from the outset so that the only major additions have been one English centrifuge and one English tissue processing machine. Both are giving satisfactory service, and compared with their American counterparts are considered superior from both engineering and design points of view.

Training facilities in histological technique were given to one technician from the Galt Hospital, Lethbridge.

Similar training in the Serology of syphilis has been offered to the Holy Cross Hospital, Calgary, and one trainee technician from that hospital is at present working in the Serology Department.

The staff is still predominantly composed of those who volunteered for transfer from the Edmonton Provincial Laboratory, and these together with a few replacements and additions recruited in Calgary have all worked willingly to endeavour to establish a reputation for courteous, speedy and accurate work.

Table XIV.—Work Performed in the Provincial Laboratory, Edmonton, During the Year 1950

Sputum Examinations	3,758
Diphtheria and Haemolytic Streptococci	368
Typhoid Fever (Agglutination Test)	632
Milk	518
Water L.....	903
Guinea pig inoculations	522
Miscellaneous Bacteriology	442
Blood Cultures	95
Enterobacteria and Intestinal Parasites	88
Urinalyses	2,778
Medico-Legal (Blood, Seminal, etc.)	
Blood Counts	1,581
Biochemistry Investigations	138
Cerebro-spinal fluids for the Wassermann Test	700
Bloods for the Quantitative Kahn Test	582
Bloods for the Wassermann Test	3,696
Bloods for the Standard Kahn Test	3,352
Bloods for the Presumptive Kahn Test	21,573
Smears for Gonococcus	3,919
Van Den Bergh Determinations	57
Pathological Histological material	2,038
Blood Smear Examination	65
Post Mortem Examinations	5
Histology from Post Mortems	32
Ascheim Zondek Examinations	
Fluids for Cancer Cells	46
Cerebro-spinal fluid Examinations (Colloidal Gold, Pandy)	707
Bacteriological Examinations (P.M.)	1
B. abortus Examinations (Agglutination Test)	632
P. tularensis (Agglutination Test)	632
B. militensis (Agglutination Test)	
Cattle Blood (Bang's disease—Agglutination Test)	
Total.....	49,860

Report of the Director of the Industrial Laboratories, Mr. J. A. Kelso
Table XVI.—Examinations and Analyses

I would give you the following report for the Department of Provincial Analyst and Industrial Laboratories for the year July 1, 1950, to June 30, 1951.

Acid	7	Fruit	8
Agate	1	Fruit juice	1
Alcohol	2	Fungi	4
Alfalfa Meal	3	Galena	2
Aluminum	2	Gasoline	57
Antifreeze	10	Glauber salts	12
Ash	1	Glass	1
Asphalt	2	Gold	1
Babbit Metal	2	Grain	8
Barytes	5	Gravel	16
Bentonite	4	Grass	1
Bitumen	1	Granite	6
Blood	81	Grit	2
Bones	2	Gypsum	3
Bone Meal	1	Hair	13
Brain, for alcohol	33	Hay	1
Brick	3	Honey	1
Bread	3	Hoof meal	5
Brine	1	Industrial Chemicals	14
Briquettes	11	Insect	1
Breakfast cereal	1	Insecticides	3
Butter	10	Iron pyrite	3
Cake Mix	1	Iron oxide	2
Candy	2	Iron	1
Cement	5	Jam	1
Cheese	8	Kerosene	3
Chlorine compounds	3	Lard	4
Cinders	1	Liquor, detailed for Liquor Con-	
Clay	19	trol Board	36
Cigarettes	2	Liquor, malt, for Liquor Con-	
Cleanser	2	trol Board	858
Cloth	4	Liquor, miscellaneous	2
Clothes	11	Liquor, Police samples	78
Coal	139	Liquid	1
Codliver oil	1	Lime	2
Concrete	15	Limestone	7
Condiment	1	Linseed oil	1
Cream	3	Machine parts	9
Deposites	11	Magnesite	3
Distiller's grain	4	Margarine	8
Dye	1	Marl	4
Egg melange	6	Meat	17
Fat	8	Meat meal	2
Feed:		Medical chemicals	3
Animal	47	Medicine	9
Poultry	16	Metal	6
Concentrates	10	Mica	7
Fertilizer	1	Milk	19
Fire exhibits	5	Minerals	4
Fish	3	Molasses	2
Flax	3	Mortar	5
Flour	87	Mushroom	3
Food, human	5	Narcotics, O. & N.D. Act ex-	
Fossil	1	hibits	97

Oats	4	Soap	10
Obsidium	1	Soap powder	6
Ochre	1	Soft drinks	2
Oil:		Soils	59
Crude	1	Sterilizing solutions	1
Lubricating	13	Steel	3
Protective	1	Straw	1
Fuel	2	Sugar	2
Oil residue	8	Syrup	2
Ore	91	Tallow	1
Paint	25	Talc	2
Paper	2	Tankage	17
Pills	11	Tile	1
Pipe metal	1	Tea	1
Pitch	1	Tar	1
Plants	1	Tuffa	1
Plaster	5	Urine	77
Poison exhibits, miscellaneous.....	10	Varsol	3
Poison examinations, human.....	102	Varnish	1
Police exhibits, miscellaneous.....	11	Vegetable	3
Powder	8	Volcanic ash	1
Quartz	9	Water, sanitary	1202
Rock	31	Water, poison	8
Rope	2	Water, industrial	49
Rubber	2	Wax	5
Salve	1	Wheat	112
Sand	27	Wort	4
Sandstone	2	Wood	5
Salt	13	Veterinary exhibits	563
Scale	4	Engineering materials:	
Schist	6	Concrete cylinders	4973
Seed grain	3	Electrician gloves	214
Sewage	1	Wire rope	16
Shale	4		
Sludge	5	Total	9723

Engineering materials were, as usual, handled in conjunction with Departments of Civil and Electrical Engineering. As required, analyses were made for and investigations carried out for various government departments—Attorney General, Lands and Mines, Health, Agriculture, Veterinary Laboratory, Alberta Liquor Control Board, etc. The latter now requires the Provincial Analyst to have complete control over quality of all liquors sold by the Board and to inspect all breweries and a new distillery erected in Calgary. Work for this Board has been heavy and successful.

We have a close working agreement with Research Council of Alberta, especially the Oil and Gasoline Testing Laboratory.

Necessary court evidence was given under Provincial and Dominion acts and regulations and the Criminal Code.

All required analyses were made for police forces and the provincial coroners, and the Provincial Analyst must be available at all times for court attendance and in most cases make his own analyses.

Detailed analyses were made on some 1,200 samples of water for sanitary purposes.

This program of analyses, etc., for provincial and industrial purposes has been heavy and carried out by a staff of only two assistants.

